The Likely Impact of a Thermal Resistance Rating Program on the Consumer Decision Making Process for Winter Outerwear

by

Mary Kathryn Elias

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ABSTRACT

The purpose of this study was to examine the purchase decision process for winter outerwear and to investigate the impact that a thermal resistance rating program would have on the decision making process for winter outerwear.

A survey design was employed using a self-completion mail questionnaire. Participants were consumers who had purchased a winter coat or jacket for the current winter season. Socioeconomic, demographic and other background variables were examined as well as variations in the rated importance of criteria used in the consumer decision making process, the preference for provision of warmth information and the severity of shopping problems associated with the purchase of winter outerwear. Chi square analysis and non-parametric one-way analysis of variance were used to test the hypotheses. Discussions with a small sample of winter outerwear manufacturers allowed comparisons of the views of consumers with those of manufacturers.

The findings indicated that the rated importance of criteria used in the purchase decision making process for winter outerwear varies among consumers. Almost ninety percent of the study participants indicated that they would use a warmth rating program while shopping problems associated

with the purchase of winter outerwear were generally not considered to be major. Manufacturers, on the other hand, indicated that style was the most important feature and that consumers have no means by which to assess the warmth of winter coats and jackets. Further studies are suggested as the views of consumers and manufacturers are not convergent.

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Chapter I

INTRODUCTION

STATEMENT OF THE PROBLEM

Technological advances have changed the nature and scope of the marketplace making it increasingly difficult for the consumer to assess products; make a wise, efficient and educated decision; and ultimately to be satisfied with the choice made. Consumer demand for information in the marketplace has grown more rapidly than the availability of information and a consumer information gap has resulted.

The amount of information needed by a consumer to stay abreast of the developments in the marketplace has been affected by product, brand and model proliferation, product complexity and rapidity of changing product characteristics. The marketplace is now characterized by mass production, mass consumption, mass distribution and mass promotion. The consumer as well has changed - time has placed a constraint on consumers, discretionary income has increased and consumers are more socially aware. To heighten the complexity of this situation, consumer product and performance information is sometimes deceptive. The kind and amount of consumer information and product performance expected by consumers appears to increase as the level of affluence rises (Thorelli and Thorelli, 1977; Herman, 1980 and Aaker and Day, 1982).

Providing consumer information has been highlighted as a major policy issue for this decade in order that improved purchase decision can be made (Capon and Lutz, 1979). Wilkie and Gardner (1974) stated that a primary concern among researchers should be to lead rather than lag in public policy issues. If the ideal is to have autonomous and self-reliant consumers in the marketplace the gap between what the consumer has a right to know and what product information is actually available must be narrowed (Thorelli and Thorelli, 1977).

As awareness has grown of the need for more and better objective information to be provided to the consumer, dozens of countries have introduced comparative testing programs, informative labelling and quality certification programs. There are both mandatory and voluntary programs in these categories. A number of labelling programs providing information have been implemented in Europe and North America including textile labelling, care labelling, down and feather labelling, hazardous products labelling, energy consumption labelling and nutrition labelling. These information programs are designed to enable the consumer to make a more efficient and satisfactory choice in the marketplace.

Information provided through product labelling not only assists the consumer in making a more-informed decision but can minimize and reduce a consumer's economic loss and overall dissatisfaction with a given product. The interest in

product labelling in the public policy setting is to aid consumers by providing fuller information on the alternatives available in the purchase decision (Wilkie, 1975). Because the information to be communicated through product labelling is to be objective and standardized there is a need to address the question of how the consumer will use this kind of information.

One area of concern in recent years has been the changes, developments and variety of textile products designed for thermal protection. It may be difficult for the consumer to know and understand the nature of the many types of insulating materials used, particularly in outdoor clothing. Consequently, Consumer and Corporate Affairs Canada has suggested that there is a need for establishing a thermal resistance rating for consumer textile articles. This rating, although not likely to be absolute or definitive because factors other than thermal properties of the article will have to be considered by the consumer, could provide the consumer with enough comparative information on which to base a purchase decision.

A standardized labelling system of thermal resistance ratings for textile articles could have implications for industry, government and the consumer.

NEED FOR THE STUDY

While consumers spend a considerable amount of their clothing dollar on keeping warm there seems to be little objective consumer information available on the thermal properties of clothing especially outerwear.

Clothing, according to Sproles (1979), is a functional product with a number of useful purposes, that is, it can satisfy certain needs of the consumer. These needs follow Maslow's hierarchy of needs. Clothing analysts frequently focus on four functions of dress - modesty, immodesty, protection and adornment. Although personal decoration and adornment are perhaps the most significant and universal function of dress, the utilitarian and practical functions of clothing cannot be understated. Clothing, Sproles (1979) has indicated, is first a utilitarian product designed to perform three practical functions: protection as a shield between the body and the natural environment, comfort in order that the consumer's preferred body temperature can be maintained and convenience when freedom of movement and performance of activity are allowed. It is estimated that in North America insulation or keeping warm accounts for approximately half of the money spent on clothing, the remainder is explained by sociopsychological factors (Steadman, 1980).

PURPOSE OF THE STUDY

The purpose of this study was to determine the criteria used in the purchase decision making process for winter outerwear and more specifically to determine the extent to which consumers use and would use information regarding insulating values in this process. The likely impact that a thermal resistance or warmth rating program would have on the decision making process was investigated. Demographic variables, socioeconomic variables, understanding of insulating values, purchase and ownership experience, use behavior, and familiarity with and use of other product labelling programs were studied to characterize consumer groups who are most likely to use warmth information in the decision making process for winter outerwear.

The ultimate goal of this study was to provide information which may be useful in the establishment of a thermal resistance rating program for consumer textile articles.

OBJECTIVES

The overall objective of this thesis was to determine the probable impact that a thermal resistance rating program would have on the consumer decision making process for textile outerwear (specifically winter coats and jackets for everyday use). This can be translated into the following objectives:

1. To determine the relative importance of criteria used in the consumer decision making process for winter outerwear.

2. To determine the determinant attributes used in the consumer decision making process for winter outerwear.

3. To determine the degree of severity of certain shopping problems that may be associated with the buying of winter outerwear.

4. To determine how consumers assessed the warmth of winter outerwear.

5. To determine how (in what form) consumers would like 'warmth' information to be provided.

6. To determine if the provision of warmth information would be of greater importance for adults' or children's winter outerwear.

7. To determine the sources of information used in order to obtain information about warmth of winter outerwear.

8. To investigate the difference in the importance of criteria used in the decision making process with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understanding of R value (RSI value), purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

9. To investigate the difference in preference for provision of warmth information with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understanding of R value (RSI value), purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

10. To investigate the difference in shopping problems associated with the purchase of winter outerwear with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understandinng of R value (RSI value), purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

NULL HYPOTHESES

In order to meet objectives 8, 9 and 10 three hypotheses have been developed.

1. No significant difference exists in the importance of criteria used in the consumer decision making process for winter outerwear with the respondents'
   a) age
   b) sex
   c) level of education
   d) occupation

e) income

f) awareness and understanding of R value (RSI value)

g) purchase experience

h) ownership experience

i) use behavior

j) familiarity with and use of two product information labelling programs

2. No significant difference exists in preference for provision of warmth information with the respondents'

a) age

b) sex

c) level of education

d) occupation

e) income

f) awareness and understanding of R value (RSI value)

g) purchase experience

h) ownership experience

i) use behavior

j) familiarity with and use of two product information labelling programs

3. No significant difference exists in shopping problems associated with the purchase of winter outerwear with the respondents'

a) age

b) sex

c) level of education

d) occupation

e) income

f) awareness and understanding of R value (RSI value)

g) purchase experience

h) ownership experience

i) use behavior

j) familiarity with and use of two product information labelling programs

DEFINITIONS

THERMAL RESISTANCE (warmth rating and insulating value are used interchangeably with this term): a measure of the insulation against heat loss or a measurement of the insulation's resistance to heat flow.

CONSUMER INFORMATION (product information and performance information are used interchangeably with this term): objective and standardized information for purpose of assisting the consumer in making judicious choices in the marketplace.

Chapter II

REVIEW OF LITERATURE

A summary and discussion of the literature relevant to this study is presented in this chapter. The review includes literature on the conceptual framework for the study, consumer information, thermal protection of textile articles and socioeconomic and demographic variables.

CONCEPTUAL FRAMEWORK

The consumer behavior model developed by Engel, Kollat and Blackwell (Engel and Blackwell, 1982) [Appendix A] is used in this study as the basis for conceptualizing and studying the decision making process of consumers. This model "specifies the underlying variables, the nature of the relationships between them, and the manner in which behavior is shaped and affected" (Engel and Blackwell, 1982, p. 22).

When making a decision, the consumer goes through five phases which are referred to here as extended problem solving: 1) problem recognition, 2) search, 3) alternative evaluation, 4) choice and 5) outcomes.

Extended problem solving can only occur "when the act of purchase or consumption is seen by the decision maker as having high personal importance or relevance" (Engel and

Blackwell, 1982, p.24). This is referred to as the high-involvement decision process and is present when the consumer uses a number of product attributes and evaluative criteria (the more used the higher the degree of involvement) in decision making. High involvement takes place when the product itself is perceived as reflecting one's self image, as is the case with most clothing items.

The focus of the present study, the use of thermal resistance ratings as purchase decision criteria for outerwear garments, comprises two phases of the high-involvement decision making process: search and alternative evaluation (the second and third phases, respectively).

Search

When the consumer considers making a purchase, he or she may search for information about the product. Search as defined by Engel and Kollat (1982) is "motivated exposure to information with regard to a given alternative" (p. 321). Search results when information, beliefs and attitudes are seen as inadequate. The consumer searches memory before looking to external sources for information.

External search is a "motivated and completely voluntary decision to seek new information" (Engel and Kollat, 1982, p. 323). The decision to search and the extent of the search depends on the perceived value to be gained as compared to the costs of obtaining the product information.

The factors that influence the motivation to search include the quantity and quality of existing information, the ability to recall that information, the perceived risk and confidence in decision-making ability (Engel and Kollat, 1982). External search in this study refers to search for objective product information and is discussed further in the section entitled Consumer Information. The propensity to search for product information is affected by a number of individual differences: personality characteristics, family role structure and demographic characteristics (discussed in more detail in the section on Demographic and Socioeconomic Analysis).

There are three types of information sources that can be sought by the consumer: marketer-dominated, consumer-oriented and neutral (Cox, 1967). At the present time, marketer-dominated and consumer-oriented sources dominate the marketplace. According to a number of studies the type and source of information varies by product, the perceived risk involved and the stage in the decision making process (Horne and Crown, 1983). The focus of this study is primarily on neutral information sources which provide information to the consumer with no direct commercial interest in the promotion of these goods.

Problems Associated with Prepurchase Search

Until the Claxton and Ritchie (1978) study little attention had been given to the problems that consumers associated with prepurchase search. The objective of their study was to provide a greater understanding of the nature and scope of consumer prepurchase search and information processing problems. This, is turn, was to be used as a basis for identifying actions to assist consumers in overcoming these problems.

The problems associated with the purchase of clothing was one of five product and service categories studied by Claxton and Ritchie. The findings of their study indicated that 'finding information about different clothing products' was the number one ranked problem.

Alternative Evaluation

The third phase of the extended problem solving model, alternative evaluation, comprises two steps. The first step is the use of evaluative criteria, that is, the standards and specifications used by consumers to evaluate products.

Evaluative criteria can be either objective (physical characteristics) or subjective (symbolic values). The focus of this study is on the extent to which consumers use thermal or warmth information (objective criteria) in the decision process. Evaluative criteria are shaped by motives and memory. Motives have their roots in life-style which in

turn is shaped to some degree by cultural norms and values as well as social influences. Motives shape preferences for product attributes and benefits. Memory refers to information gathered through search and first-hand information.

The number of evaluative criteria used in reaching a decision and the relative importance of each can be useful to marketers and researchers. Most studies indicate that six or less criteria are used by consumers although as many as nine could be used. Generally, the higher the degree of involvement, the more evaluative criteria used in the decision process.

Determinant Attributes

There are certain product features or attributes that are more influential in predisposing consumers to a certain preference or actual purchase. These features or attributes are said to be determinant (Myers and Alpert, 1968). According to Alpert (1980) determinance goes beyond importance although it is not conceptually different. An attribute or feature may be very important but at the same time have no real effect on the decision made if little difference is perceived among the choices. Determinance implies that features or attributes are important and that perceived differences exist among the products available.

To illustrate the concept of determinance, three examples are given here. Although safety as a criterion in the eval-

uation of automobiles is often ranked first in importance it is a feature that is often taken for granted. A manufacturer cannot, however, ignore safety features. The consumer generally perceives safety of all cars to be at or about the same level. Safety is, therefore, not considered to be a determinant attribute in the purchase decision of automobiles (Myers and Alpert, 1968).

When asked about attitudes toward savings and loan associations, consumers ranked safety of money as being foremost in importance but little difference was perceived among savings and loan associations with regard to this feature and, therefore, it was not a determinant attribute or feature. The feature showing high importance and greater difference was interest rate, which is the determinant attribute (Myers and Alpert, 1968).

In a study on energy information labels and the purchase of home appliances, energy related attributes were found not to be determinant. Recent buyers of appliances were unwilling to trade off operating cost savings for the convenience of certain relatively high energy consuming features (Anderson, 1977).

In the second step of alternative evaluation, the consumer compares the information from the search process against the evaluative criteria. When beliefs have been formed and changed, as a result of the search process, attitudes toward

the purchasing of an alternative will also change (all things being equal). Formation of a purchase decision follows if a favorable attitude is formed.

Two phases of the consumer decision making process are used in this study. The consumer may need to search for additional information on the product class under consideration and will then evaluate and compare the available alternatives. Certain product features are said to be determinant, that is, more influential in predisposing consumers to a certain preference or choice.

CONSUMER INFORMATION (PERFORMANCE INFORMATION)

Information and Performance Gap

Consumer information literature reveals that there is a large gap between what is needed and what is available in public information programs. Most of the research in consumer information processing has been developed within the areas of communications theory and advertising research which typically interfere with the straight reception of information (Wilkie, 1975).

The availability of consumer information as well as the desire or search for such information has had an impact on the marketplace. The information that consumers expect as well as the number of consumer information programs available has increased, particularly since the mid 1960s. The search for information is influenced by the consumer's per-

ceptions of what is needed and useful. In order to ensure that information is perceived by the consumer as being useful the information should be readily available, helpful in choosing products, low in cost and simple to use (Heslop, 1979; Bettman, 1979).

As early as 1974 there was a shift in consumer protection in the affluent nations, from reaction to problems, to protection designed to modify the consumer information environment. The importance of providing consumers with product performance information varies by product but is most relevant where examination and experience will not easily reveal the necessry information (Miller, 1978). According to the Swedish VDN (Institute for Informative Labelling), providing product information to consumers would standardize the information rather than the products (Liefeld, 1973).

Many Northern European countries have elaborate consumer information programs and although studies show that Northern Europeans seek and consider more variables in choosing products no relationship has been established between the two (Heslop, 1979). Recent programs have moved toward providing multidimensional information because consumer choice involves trade-offs among a number of important attributes or product characteristics (Wilkie, 1977).

One way of providing consumer information is through informative labelling schemes which are operative in Austria,

Finland, France, Germany, the Netherlands, Norway, Spain, Sweden, Switzerland, the United States and Canada as well as in virtually every industrialized country of the Western world (Liefeld, 1973). The International Organization of Consumers Unions (IOCU) has organizations in more than fifty countries, many of the organizations are small but are nonetheless operating in sometimes inhospitable environments (Thorelli and Thorelli, 1977).

The proper basis on which to evaluate or judge a product is often not understood by consumers. A study by Baird and Brier (1981) indicated that people tend to use size of an object as a criterion in judging energy requirements of familiar household appliances. People often relate high energy consumption with dishwashers but are unaware that hair dryers also consume large quantities of energy.

Providing product performance information has implications that all consumers have an equal opportunity to purchase high quality products if information on alternatives is available and used (Sproles, Geistfeld and Badenhop, 1978). Government agencies and consumer associations and agencies are continually making attempts to see that a fair competitive environment is available for consumers. Because consumers with more education, income and higher occupation status seek product information they have, according to one study, benefitted far more than low-income and minority consumers (Brandt, Day and Deustcher, 1975).

There is some support for the view, suggested by Day (1976 and 1975), that the mere availability of information increases buyer confidence. Information seems to enhance confidence by assuring the buyer that the choice of product is a good one rather than leading to actual changes in purchase behavior. In a study on informative nutritional labels (Lenahan, Thomas, Taylor, Call and Padberg, 1973), consumers saw information disclosure as a part of industry accountability rather than as a criterion in the decision making process.

The provision of objective product information is seen to enhance rather than reduce efficient consumer decision making (Sproles, Geistfeld and Badenhop, 1980). Studies have indicated that in order for consumers to be satisfied they need more qualitative information on which to make an efficient purchase decision (Sproles et al., 1980). For example, the more accurately the physiological comfort properties of textiles products can be determined the less likely consumers will be dissatisfied because of thermal discomfort (Comfort Indoors, 1984).

Labelling Programs (Information Schemes)

Since John F. Kennedy's speech enunciating the four consumer rights in 1962 there has been an increasing awareness of the consumer's right to information as well as the need for information to be provided to consumers. Some of the programs

that provide information in Canada are: the Textile Labelling Act, the Canadian Care Labelling System and Energuide.

The Canadian Textile Labelling Act requires that permanent labels be affixed to textile articles indicating the types of fibres contained in the fabric, the amount of each fibre which is present and the identity of the dealer. According to Consumer and Corporate Affairs Canada (1979), fibre content labelling has been made mandatory in order to provide the consumer not only with information about fabrics and apparel but also to aid the consumer in determining good shopping value, prohibit deception on the part of the dealers or manufacturers and make it possible for the consumer to avoid fabrics to which they are allergic.

The Canadian Care Labelling System is a means by which care information about colorfastness, dimensional stability, effect of retained chlorine bleach and maximum safe ironing temperature can be conveyed in a simple and understandable format. This is a voluntary program but when employed the symbols must be used correctly. Care Labelling is an important aid to consumers as it "enables consumers to choose textiles on the basis of the care method required and reduces both economic loss and the number of complaints resulting from inappropriate cleaning procedures" (Consumer and Corporate Affairs Canada, 1984, p. 2).

The Energuide program requires that a variety of household appliances prominently display a label indicating the monthly electricity consumption in kilowatt hours. One of the primary objectives of the Energuide program is to enable consumers to compare the energy consumption of similar models available in the marketplace and to choose the one that consumes the least amount of energy (Consumer and Corporate Affairs Canada, 1983). The Energuide program has been implemented with three objectives in mind: to enable the consumer to make comparisons, to allow retailers to assist the consumer make energy efficient choices and to encourage the manufacturers to improve the energy efficiency of appliances. As the cost of energy continues to increase, there will be a corresponding rise in demand for improved appliance energy efficiency (Tryfos and Fenwick, 1984).

One of the objectives in a study of disadvantaged consumers (Liefeld, 1976) was to determine the importance of criteria used in clothing purchase decisions. Although warmth or insulating features were not mentioned, the study suggested that when a type of product information (e.g., care and textile labelling) is available to the consumer long enough it will eventually be incorporated into the decision making process.

As a result of the many recent developments in products available in the marketplace and the frequent inability of consumers to understand and judge new products a consumer

information gap has resulted. In order that all consumers have an equal opportunity to purchase high quality products many countries have adopted consumer information programs. The provision of objective product information is generally seen to enhance efficient consumer decision making.

THERMAL PROTECTION OF TEXTILE ARTICLES

The quantification and measurement of thermal properties of textile articles has been of importance for many centures but only recently has there been an attempt to establish a standardized means of measuring warmth. There are currently available a number of systems giving thermal comfort information to consumers in the marketplace. There is, however, no standard label, unit or means of measurement for these ratings.

Physical Assessment

In the past, climatic studies have been undertaken to determine how much clothing is needed to remain comfortable. In previous centuries the Chinese, apparently, described the clothing behavioral response in thermal terms such as, 'the two suit month' when referring to November (Aulciems, De Freitas and Hare, 1973). Climate zones have been identified by the United States Army Quartermaster Corps according to insulation needs using descriptive terms like 'the one layer clothing zone' when referring to the sub-tropics and 'the four layer maximum clothing zone' when referring to the sub-arctic (Auliciems et al., 1973).

Numerous studies have been undertaken to establish a reliable and valid test for measuring and quantifying the thermal protection of textile articles. A wealth of test materials is available to assess the relationship between clothing comfort and fabric properties. In the English speaking world there are several organizations that publish test methods including: the United States government, the Canadian government, the American Society for Testing Materials, the American Association of Textile Chemists and Colorists and the British Standards Institute. Other organizations in Hungary, Germany, Rumania, the Soviet Union and a number of other countries have dealt with the testing of thermal properties of textile articles.

Although a standard test for thermal resistance of textile articles has not been established, it has been of concern to researchers for several decades. Before World War I the thermal ohm was advocated as a measure of thermal resistance. The tog as proposed by Peirce and Rees in 1946 was intended to be a practical unit of measurement, one tog being equal to approximately the insulation of light summer clothing. The tog is one-tenth the thermal insulation of the thermal ohm and is equal to 0.645 clo (Fourt and Hollies, 1970). The clo unit of thermal measurement was introduced in America around 1940 with one clo being equal to the "amount of clothing required to keep a sitting man of average metabolic rate comfortable in the average indoor atmosphere of 21° C" (Comfort Indoors, 1984, p. 20).

The insulating values of various types of civilian clothing have been neglected and the bulk of research relating to this topic has been stimulated by the needs of the military services (Auliciems et al., 1973). The clo unit of thermal insulation has been widely used in practical discussions of military clothing. In familiar terms, as it was intended, the clo unit gives the thermal insulation of a soldier's wool uniform for cool weather, of a business suit as worn in Philadelphia, New Haven or Toronto or the added insulation given by a substantial top coat (Fourt and Hollies, 1970). The clo value may refer to the average balance value of a clothing assembly. Although given in practical or familiar terms, these equivalents are not the definition of the clo unit itself. In precise physical terms clo = 0.18° C m^2 hr/kg cal.

Application to Consumer Textile Products

Two systems employing a standarized means of measuring thermal resistance are currently in operation, one for clothing and another for quilts.

STAYWARM with Clothing, a computerized analysis of the insulation value of clothing, is designed to familiarize individuals with ways of maintaining thermal comfort when indoor temperatures have been lowered (Dedic and Hilliker, 1982). The program estimates the insulation value of a number of clothing ensembles and this value is expresssed in clo index numbers.

One known labelling system giving thermal resistance is currently in operation in England. A British Standard specification BS5335 - 1976 has been written on duvets or continental quilts. If articles are made to this standard they are required to give a minimum thermal performance. Two thermal characteristics are incorporated into this standard: insulation value or tog value and the warmth to weight ratio. It is noted that while thermal insulation is important it should be provided with a minimum amount of weight. This British Standard gives four warmth categories for quilts: 7.5 togs minimum, 8.5 togs minimum, 9.5 togs minimum and 10.5 togs minimum. Manufacturers may produce quilts with tog values between these values and higher if desired. Generally, the heavier the quilt the lower the tog value. The values of these thermal criteria indicating the grade or thermal quality of the quilt are required on the quilt for the guidance of the buyer (Ray, 1981).

Other systems giving thermal comfort information are in operation but vary from one company to another and often lack reliability and validity. Minimum comfort and temperature ranges are sometimes given for outdoor clothing and sleeping bags and are usually the result of personal endorsements rather than any controlled tests being undertaken to determine such chracteristics (McCullough and Rohles, 1983).

A study undertaken to compare and evaluate the thermal properties of sleeping bags proved inconclusive as test methods and rating scales varied by company. The only definite conclusion was that the insulating ability of a sleeping bag cannot be judged by its price tag (Sleeping Bags for Backpacking, 1977).

Other tests have been undertaken to compare various articles but no standardized program, test, or labelling system exists at the present time that compares all textile products according to thermal resistance. According to product information released by 3M Canada Inc., tests to determine the thermal resistance of Thinsulate, polyester fiberfills and down, indicate that Thinsulate offers twice as much insulating value as polyester fiberfills and 1.8 times as much insulating value as down (Cociver, 1980).

Only one known study (Margerum, 1984) has directly asked consumers if they would favor a consumer information program giving warmth ratings. Eighty-four percent of the respondents favored a warmth rating label on indoor garments with those between the ages of 61-78 indicating the highest preference (94%).

The quantification of thermal resistance has been undertaken and expressed in units called togs and clos. A standardized means of measuring thermal resistance has been applied primarily to textile articles used in an indoor

setting in order that thermal comfort can be maintained when temperatures have been lowered. As related to textile outerwear, the measurement of thermal resistance has been tested but not applied or available to consumer products in the marketplace.

DEMOGRAPHIC AND SOCIOECONOMIC VARIABLES

In this section demographic and socioeconomic variables will be related to the decison making process.

According to the Engel, Kollat and Blackwell model (Engel and Blackwell, 1982) economic and demographic realities are environmental influences that shape consumer choices. The environmental variables are lifetime experiences and are present from birth to determine the way in which a consumer will react and make choices in the decision making process. Demographic and economic variables are internalized into the decision making process and these influence intentions and choices of the consumer.

Numerous studies indicate that income, education, personality and lifestyle have an effect on the decision making process including information seeking (search) (Brody and Cunningham, 1968; Claxton et al., 1974; O'Brien, 1972). Consumers with higher incomes, education and those with more self-confidence are more likely to use, seek and desire product information (Heslop, 1979; Thorelli and Thorelli, 1977). Information seekers, as these consumers are called,

are cosmopolitan, from middle and upper income brackets, college educated, hold professional and managerial jobs, are the 'vigilantes' of the marketplace and disseminate information and advice to fellow consumers (Thorelli and Thorelli, 1977).

Level of education and income can be used as determinants in the search process. Findings indicate that the relationship between information- seeking or search activities with income and education is positively correlated (Katona and Mueller, 1958). In a study of new car and appliance purchases, Newman and Staelin (1972,1973) found that buyers who had not completed high school sought less information than consumers who had completed high school, attended vocational training or who had a college degree.

Income has been shown to be a factor in the ability to process and use information. Day (1976) indicated that low-income buyers are unaware of the benefits of comparative shopping, lack education and knowledge to choose the best buy and, as well, lack motivation to make improvements in their situation.

If a better understanding of information seeking by fashion leaders and followers was available manufacturers and retailers could more effectively promote fashions to leaders (Polegato and Wall, 1980). The study indicated that fashion leaders used a greater number of fashion information sources and also used them more frequently.

A study by Crosby and Taylor (1981) suggested that an area for future research might be the relationship of sex roles to the use and acquisition of consumer information. The implication being that male and female may acquire and use different kinds of information in the purchase decision making process.

Age can also be a factor in determining or influencing preference for certain types of information. In a study cited earlier, (Margerum, 1984) the older respondents more highly favored the provision of warmth rating information on indoor textile garments.

Both demographic and socioeconomic characteristics have been shown to have an influence on the consumer decison making process. As these characteristics are internalized into the decision making process, the intentions and choices of the consumer are shaped.

Chapter III

METHODOLOGY

This chapter outlines the research design, questionnaire development, sample selection and data analysis.

RESEARCH DESIGN

As the application of thermal resistance ratings to textile articles in the form of consumer information is a relatively new area of study, this thesis is primarily exploratory in nature.

Designing a consumer information program according to Wilkie (no date), is a six-stage process: 1) selection of product class, 2) identification of relevant product characteristics, 3) development of standards and test methods, 4) determination of reporting format, 5) provision for dissemination, and 6) assessment (assurance) of effectiveness. This study focuses primarily on selection of product class and identification of relevant product characteristics. Test methods and standards for providing thermal resistance ratings have already been developed and could be used in a consumer information program. An attempt will be made to determine the consumer's preferred reporting format.

In addition to meeting the objectives as outlined, it is hoped that this study will provide a basis for further research in this area.

A survey design with a self-completion mail questionnaire was used to collect the data.

QUESTIONNAIRE DEVELOPMENT

The questionnaire developed for this study asked the consumer to focus on the most recent coat or jacket purchase (the garment must have been purchased during the past year, that is, for the 1984/84 winter season). The questionnaire had eight parts: 1) a series of questions directly related to this purchase, 2) general information about the warmth of winter coats and jackets, 3) shopping problems associated with the purchase of winter coats and jackets, 4) knowledge and understanding of R value (RSI value), 5) provision and use of warmth ratings, 6) use, ownership and purchase experience, 7) use and familiarity with two product information labelling schemes, and 8) demographic and socioeconomic information. Demographic and socioeconomic variables were included to determine if differences existed in responses to other questions with these variables.

Socioeconomic and Demographic Information

All biographic and socioeconomic information gathered except occupation was based on categories used in the 1984 Winnipeg Area Study (Currie and Ursel, 1984). Categories measuring the level of education were modified by reducing the number of alternatives in each category. Data from the occupation question were based on Pineo, Porter and McRobert's (1977) classification of occupations.

Awareness and Understanding of R (RSI) Value

Because the term R value may be a possible means for rating warmth in winter outerwear, it was useful to determine awareness and understanding of this concept. Thermal resistance of home insulation, for example, as measured by R value or RSI value is the same concept as keeping warm with the use of winter outerwear. Those who are familiar with and understand this concept may, therefore, also be more cognizant of the need to have a similar program in outerwear and in general be more aware of the heat flow and heat loss of winter outerwear.

Awareness and understanding of R value was determined by a series of three questions. Awareness was measured by asking the respondents whether of not they had heard of the term 'R value'. Understanding was measured by a self-evaluation question on their knowledge level and to list items that have an R value.

Purchase, Ownership and Use Behavior

Consumers were asked to indicate their purchase experience, ownership experience and use behavior. It was thought that those consumers with more purchase and ownership experience and the more frequent users would be more favorably inclined toward the provision of warmth information.

Purchase experience was determined by asking the respondents how many coats or jackets they had purchased for themselves and for others in the past five years. Ownership experience was simply determined by asking for the number of coats or jackets now owned. Use behavior was determined by asking the participants to indicate the frequency with which the garment is worn.

Knowledge and Use Behavior of Two Product Labelling Schemes

Familiarity with and use of the Textile Labelling Act and the Canadian Care Labelling System were used in this study as one of the indicators of 'information seekers', that is, those consumers who understand and use product information in purchase decison making. Familiarity with and use of product labelling programs were used to test for possible differences in preference for provision of warmth information. It was thought that those who are already familiar with and use one or more labelling schemes would be more inclined to want and use another labelling program, in this case, a warmth rating program.

Familiarity with and use of two product information labelling programs was determined by asking the respondents to rate their own familiarity with and use of these two programs.

Evaluation and Preference Measures

Criteria used in the purchase decision making process were both rated and ranked in importance while determinant criteria were identified by an approach developed by Myers and Alpert (1968); preference for provision of warmth information was measured by a series of questions using both direct and projective techniques; and the degree of severity of shopping problems associated with the purchase of winter outerwear was patterned after a study by Claxton and Ritchie (1978).

SAMPLE

A convenience sample of approximately 100 consumers was solicited for this study from a number of service and community groups and employees of two large institutions in the Winnipeg area. It was deemed more important to locate consumers who had purchased a winter coat or jacket for the current winter season than to obtain a random sample. Limited time and money also placed constraints on the nature of soliciting participants. Consumers from diverse groups were asked to participate to give a variety of demographic and socioeconomic characteristics in the sample.

A two-stage sampling process was used in this study. Initial contact was made by letter (Appendix B) to groups and institutions to solicit participants who had purchased a winter coat or jacket this season. Consumers who fulfilled this requirement and were willing to participate in the study were asked to pick up a questionnaire at a pre-arranged place whether at a group meeting or their place of work. The only difference being those consumers who responded to an advertisement in which case a questionnaire was mailed to them.

A convenience sample of nine students was used to pretest the questionnaire at the beginning of March 1985. The purpose of the pretest was to determine the clarity of the questions and the length of time required to complete the questionnaire. Following the pretest minor changes and additions were made to the questionnaire. The final questionnaires (Appendix C) were distributed in March and April, 1985.

LIMITATIONS

In any study on consumer behavior there is a question of validity: are what people say they do or would do and what they actually do the same? There are indications that awareness of disclosure information, for example, is much higher than actual usage (Day, 1976). Thus, although the rating scales used here give an indication of consumers'

preferences the results should be interpreted with caution. Consumers may pay lip-service to the importance of consumer education and fully intend to make reasoned and wise choices, but in fact may not do so when the time comes. For example, a consumer may state that warmth is important but still choose primarily on the basis of style. While this study attempted to measure the relative importance of criteria used in the purchase decision process no attempt was made to determine the trade-offs, minimum or cut-off levels for certain criteria or the actual decision style used by the respondents. Further studies might address these questions using an experimental methodology.

The convenience sample used here is adequate for an exploratory study, but it represents the younger, better educated and higher income section of the population from which it was drawn. Thus the results should be interpreted with caution as they cannot be said to be representative of the population as a whole. A lower income sample might, for example, rate the choice criteria differently.

DATA ANALYSIS

The statistical procedures used to describe the data were frequency counts, percentages and means. The chi square test was used to test for differences among groups in crosstabulations of the variables. Nonparametric one-way analysis of variance (Kruskal-Wallis test) was used in hypothesis

1 to test the differences among the means in the importance rating of criteria (Conover, 1980). A 0.05 level of significance was set for testing the hypotheses. Table 1 summarizes the statistical analyses used to test the hypotheses.

TABLE 1

SUMMARY OF STATISTICAL ANALYSES

HYPOTHESIS	VARIABLE	VARIABLE	LEVEL OF MEASUREMENT	STATISTICS
1	IMPORTANCE OF CRITERIA	AGE	ORDINAL/NOMINAL	ANALYSIS OF VARIANCE
		SEX	ORDINAL/NOMINAL	
		EDUCATION	ORDINAL/NOMINAL	
		OCCUPATION	ORDINAL/NOMINAL	
		INCOME	ORDINAL/NOMINAL	CHI-SQUARE
		R VALUE	ORDINAL/ORDINAL	
		PURCHASE EXPERIENCE	ORDINAL/ORDINAL	
		OWNERSHIP EXPERIENCE	ORDINAL/ORDINAL	
		USE BEHAVIOR	ORDINAL/ORDINAL	
		FAMILIAR/USE LABEL SCHEMES	ORDINAL/ORDINAL	
2	PREFERENCE FOR PROVISION OF WARMTH INFORMATION	AGE	NOMINAL/NOMINAL	CHI-SQUARE
		SEX	NOMINAL/NOMINAL	
		EDUCATION	NOMINAL/NOMINAL	
		OCCUPATION	NOMINAL/NOMINAL	
		INCOME	NOMINAL/NOMINAL	
		R VALUE	NOMINAL/ORDINAL	
		PURCHASE EXPERIENCE	NOMINAL/ORDINAL	
		OWNERSHIP EXPERIENCE	NOMINAL/ORDINAL	
		USE BEHAVIOR	NOMINAL/ORDINAL	
		FAMILIAR/USE LABEL SCHEMES	NOMINAL/ORDINAL	
3	SHOPPING PROBLEMS	AGE	ORDINAL/NOMINAL	CHI-SQUARE
		SEX	ORDINAL/NOMINAL	
		EDUCATION	ORDINAL/NOMINAL	
		OCCUPATION	ORDINAL/NOMINAL	
		INCOME	ORDINAL/NOMINAL	
		R VALUE	ORDINAL/ORDINAL	
		PURCHASE EXPERIENCE	ORDINAL/ORDINAL	
		OWNERSHIP EXPERIENCE	ORDINAL/ORDINAL	
		USE BEHAVIOR	ORDINAL/ORDINAL	
		FAMILIAR/USE LABEL SCHEMES	ORDINAL/ORDINAL	

Chapter IV

RESULTS AND DISCUSSION

A description of the sample, the descriptive and statistical analyses, and the discussion and interpretation of the results are included in this chapter.

DESCRIPTION OF THE SAMPLE

Demographic and Socioeconomic

A total of eighty-four questionnaires was returned by April 30, 1985, sixty-three of which were usable (twenty-one questionnaires were disqualified because they did not fall within the research guidelines, that is, the outerwear garment had been purchased more than one year ago). In comparison to the 1984 Winnipeg Area Study the participants in this study were younger, had more education and income.

Twenty-four percent of the respondents were male and 76% were female. The age distribution (Table 2) shows that 32% of the respondents were between the ages of 35 and 44 (modal category) and 73% of the respondents were 44 years of age and under.

Although the modal category of the study sample for the level of education completed was 'high school', 50% of the respondents have either an undergraduate or graduate degree.

TABLE 2

Percentage Distribution of Respondents' Age

AGE	PERCENTAGE *
under 25	14%
25 - 34	27
35 - 44	32
45 - 54	16
55 - 64	10
over 65	2

* more than 100% due to rounding

Table 3 gives a more detailed distribution of the level of education completed.

TABLE 3

Percentage Distribution of Respondents' Level of Education

LEVEL OF EDUCATION COMPLETED	PERCENTAGE *
High school	37%
Technical (non-university)	13
Bachelor's degree	35
Post-graduate degree	16

* more than 100% due to rounding

Table 4 shows the percentage distribution of occupation categories based on Pineo, Porter and McRobert's (1977)

classification. A range of occupations is shown with the modal category being 'employed professionals' (21%). The second most frequently reported occupation was 'semiskilled clerical-sales-service' with 17% in this category.

TABLE 4

Percentage Distribution of Respondents' Occupations

OCCUPATION	PERCENTAGE
Employed professionals	21%
High level management	6
Semi-professionals	8
Middle management	14
Supervisor	3
Skilled clerical-sales-service	13
Skilled crafts and trades	2
Semiskilled clerical-sales-service	17
semiskilled crafts and trades	2
Student	8
Homemaker	6

The employment distribution shows that 71% of the respondents were employed full time and a further 17% were employed part time.

The respondents' income distribution indicates the modal category to be the $40,000 to $49,999 level with 25% of the sample falling within it. The second most frequently checked level is the $70,000 and over category (17%). Table 5 shows a more detailed distribution of all income categories.

TABLE 5

Percentage Distribution of Respondents' Total Family Income

TOTAL FAMILY INCOME	PERCENTAGE *
under $10,000	2%
$10,000-$14,999	2
$15,000-$19,999	3
$20,000-$24,999	7
$25,000-$29,999	10
$30,000-$34.999	10
$35,000-$39,999	5
$40,000-$49,999	25
$50,000-$59,999	8
$60,000-$69,999	12
$70,000 and over	17

* more than 100% due to rounding

Purchase, Ownership and Use Behavior

Consumers indicated their level of purchase experience by indicating the number of winter outerwear garments they had purchased for themselves and for others during the past five year period (Table 6). Responses to the question on purchase experience show that 22% of the respondents had purchased less than three coats or jackets for themselves in the past five years, 27% purchased three coats, 22% purchased four coats and 29% purchased five or more coats for themselves in the past five years.

Responses to purchase experience related to buying for others in the past five years show that 41% had not bought

winter outerwear garments for others, 29% had bought one to four for others and 30% had bought five or more for others.

TABLE 6

Percentage Distribution of Respondents' Purchase Experience

NUMBER OF GARMENTS PURCHASED	SELF	OTHERS
0	0%	41%
1-2	22	(
3	27	(29
4	22	(
5 or more	29	30

Ownership experience was determined by asking the participants to indicate the number of winter coats or jackets currently owned (Table 7). Seventeen percent of the participants indicated that they owned three or less coats or jackets, 37% owned four or five coats or jackets and 46% owned six or more winter outerwear garments.

Use behavior was determined by the frequency with which the garment identified in the study was worn (Table 8). The outerwear purchased by the study participants was 'almost always' worn by 41% and 'often' worn by 43%. Generally the outerwear identified in this study was for everyday or casual use, only 5% indicated that the garment was worn 'while at work'. While few participants were expected to wear the

TABLE 7

Percentage Distribution of Respondents' Ownership Experience

NUMBER OF COATS OWNED	PERCENTAGE
3 or less	17%
4 - 5	37
6 or more	46

purchased garment 'while at work' it was thought that those who did would be more favorably inclined toward the provision of warmth information.

TABLE 8

Percentage Distribution of Respondents' Use Behavior

HOW OFTEN WORN	PERCENTAGE
Seldom	2%
Occasionally	14
Often	43
Almost always	41

Knowledge and Use Behavior of Two Product Labelling Schemes

Table 9 shows the distribution of responses to the question on familiarity with and use of the Textile Labelling Act. Less than 10% of the participants rated themselves as being

extremely familiar with the Textile Labelling Act while 29% rated themselves as being not at all familiar with it. Responses to the question on use of the Textile Labelling Act indicated that 32% of the study sample use it always and 22% never use the information provided by this Act.

TABLE 9

Familiarity and Use of the Textile Labelling Act

Percentage Distribution

RATING*	FAMILIARITY	USE**
1	29%	22%
2	19	5
3	17	15
4	25	27
5	10	32

* Rating scale:
Familiarity: 1 = not at all familiar
5 = extremely familiar

Use: 1 = never, 2 = seldom, 3 = occasionally
4 = often, 5 = always

** more than 100% due to rounding

Table 10 gives the distribution of responses to the question on familiarity with and use of the Canadian Care Labelling System. Thirty-two percent of the study participants indicated that they are extremely familiar with the Canadian Care Labelling System while 24% are not at all fa-

miliar with it. Responses to use of the program showed that 32% use it always and 20% never use it.

TABLE 10

Familiarity and Use of the Canadian Care Labelling System

Percentage Distribution

RATING*	FAMILIARITY**	USE
1	24%	20%
2	5	8
3	11	12
4	29	28
5	32	32

* Rating scale:
Familiarity: 1 = not at all familiar
5 = extremely familiar

Use: 1 = never, 2 = seldom, 3 = occasionally
4 = often, 5 = always

** more than 100% due to rounding

The responses to the four questions relating to familiarity and use of two product labelling programs were fairly similar except for familiarity with the Textile Labelling Act. Only 10% of the respondents were extremely familiar with the Textile Labelling Act while 32% were extremely familiar with the Canadian Care Labelling System. The difference may be that the information provided by the Textile La-

belling Act is somewhat more obscure and, therefore, not understood by consumers.

Crosstabulations of both familiarity with and use of the Textile Labelling Act and familiarity with and use of the Canadian Care Labelling System show a concentration of consumers in the never or seldom use and not familiar cell for both labelling schemes. There is another concentration of consumers in the always or often use and familiar cell for both labelling schemes. That is, consumers who indicated a high level of familiarity were also frequent users of this product information.

Awareness and Understanding of the Term R Value (RSI Value)

Sixty-three percent of the respondents rated themselves as having no knowledge or understanding of the term R value (RSI value). Tables 11 and 12 give a more detailed distribution of awareness and understanding of the term R (RSI) value.

TABLE 11

Respondents' Awareness of R (RSI) Value

Percentage Distribution

AWARENESS (Knowledge)	PERCENTAGE
Not at all knowledgeable	63%
Slightly knowledgeable	20
Somewhat knowledgeable	13
Extremely knowledgeable	4

TABLE 12

Respondents' Understanding of R (RSI) Value

Percentage Distribution

UNDERSTANDING	PERCENTAGE
Yes	37%
No	63

DESCRIPTION OF THE PURCHASED WINTER OUTERWEAR GARMENT

The type of winter outerwear purchased was categorized as either coat or jacket, 70% of the respondents had purchased a coat and 30% had purchased a jacket during the past year. The average price for coats purchased was $208 with a range of $40 to $495. The average price for jackets purchased was $88 with a price range of $30 to $200.

Approximately 50% of the respondents indicated that the outer fabric was either all or part wool. The type of closure used in the garments was 56% button only, 13% zipper only and 31% a combination of button and zipper. Table 13 shows the responses given for the insulating material used in the garments: 31% were down or polyester filled and 37% were cloth coats with no specific insulating material indicated by the respondents.

TABLE 13

Type of Insulating Material in Purchased Garment

Percentage Distribution

INSULATING MATERIAL	PERCENTAGE
Cloth (Shell)	37%
Polyester-filled	17
Down-filled	14
Thinsulate	3
Wool	2
Other	5
None	5
No response	17

Because special features of a winter coat such as a hood, storm cuffs, a drawstring at the waist and closure up to the neck can be important factors in staying warm (McCullough, 1981), the respondents were asked to indicate the kind of special features included on their winter outerwear pur-

chase. More than half of the respondents indicated that there were no special features on the purchased garment, 29% indicated the presence of one special feature and 17% indicated that the garment purchased had more than one special feature.

Table 14 shows that 29% of the sample indicated styling to be the main reason for choosing the purchased garment. A further 15% indicated that warmth was the main reason.

TABLE 14

Respondents' Main Reason for Choosing Garment

Percentage Distribution

FEATURE	PERCENTAGE*
Styling	29%
Warmth	15
Low Price	10
Color	6
Comfort	5
Quality	5
Brand Name	3
Outer Fabric	3
Fit	2
Other	21

* less than 100% due to rounding

Table 15 indicates that 75% of the buyers of winter outerwear in this study were very satisfied with the purchase

they had made and the reasons given for being satisfied with their winter outerwear garment were warmth (31%), quality (13%), followed by styling and comfort (11% each). When asked if there was a reason for being dissatisfied with this purchase, 67% of the participants gave no response.

TABLE 15

Respondents' Level of Satisfaction with Purchase

Percentage Distribution

SATISFACTION/DISSATISFACTION	PERCENTAGE*
Very dissatisfied	2%
Somewhat dissatisfied	8
Neither satisfied/dissatisfied	2
Somewhat satisfied	14
Very satisfied	75

* more than 100% due to rounding

DESCRIPTIVE AND STATISTICAL ANALYSIS OF THE VARIABLES

Objective 1

The first objective was to determine the relative importance of criteria used in the consumer decision making process for winter outerwear. Table 16 shows that warmth was rated as having the greatest overall importance. On a scale of 1 - 5 (1 being not at all important and 5 being extremely important) the mean rating for warmth was 4.67. Seventy percent

of the respondents indicated that warmth was extremely important (5) and almost the entire sample (97%) rated warmth either 4 or 5 on the scale. The other features which were rated as being very important were fit, quality and comfort. Low rated features included special features and low price with brand name as the least important criterion in the decision making process for winter outerwear.

TABLE 16

Mean and Percentage Distribution of Rated Importance of Criteria

CRITERIA	RATING 1	2	3	4	5	MEAN RATING
Warmth	0%	0%	3%	27%	70%	4.67
Fit	2	2	3	18	75	4.64
Quality	0	0	5	32	63	4.58
Comfort	0	2	2	35	62 *	4.57
Styling	0	2	10	30	59	4.46
Fabric	2	2	16	30	51 *	4.27
Color	0	3	18	29	50	4.26
Windproofing	0	8	21	27	44	4.08
Type Insulation	0	10	27	23	40	3.93
Ease of Care	2	8	23	39	29 *	3.85
Type of Lining	3	15	26	35	21	3.56
Special Features	14	16	24	22	24	3.28
Low Price	13	25	31	13	18	2.98
Brand Name	50	16	18	10	6	2.06

1 = not at all important
5 = extremely important

* more than 100% due to rounding

Participants were asked to rank the four most important features considered when making their purchase. The features or criteria ranked were those listed in Table 16. Table 17 shows that warmth was ranked as the most important feature by 26(41%) of the respondents. Styling was reported by 10(16%) to be the second most important feature. Styling was also ranked as the third important feature by 12(19%) and fit was ranked as the fourth important feature by 15(24%) of the respondents.

TABLE 17

Rankings and Weighted Rankings of the Four Most Important Criteria

Frequency Distribution

	RANK				
FEATURE	1ST	2ND	3RD	4TH	TOTAL
Warmth	26(104)*	6(18)	8(16)	6 (6)	46(144)
Styling	13(52)	10(30)	12(24)	5(5)	40(111)
Fit	5(20)	5(15)	5(10)	15(15)	30(60)
Comfort	1(4)	9(27)	10(20)	6(6)	26(57)
Fabric	5(20)	6(18)	3(16)	3(3)	17(47)
Quality	4(16)	7(21)	6(12)	7(7)	24(46)
Color	1(4)	4(12)	8(16)	7(7)	20(39)
Windproofing	0(0)	8(24)	3(6)	1(1)	12(31)
Low Price	3(12)	3(9)	3(6)	3(3)	12(30)
Insulating	3(12)	1(3)	1(2)	1(1)	6(18)
Spec Feature	0(0)	1(3)	2(4)	4(4)	6(11)
Ease of Care	0(0)	1(3)	2(4)	3(3)	6(10)
Brand Name	1(4)	0(0)	0(0)	1(1)	2(5)
Type Lining	0(0)	0(0)	0(0)	1(1)	1(1)

() weighted rank

Most (1ST) important feature = weight of 4
Second important feature = weight of 3
Third important feature = weight of 2
Fourth important feature = weight of 1

* 26 x 4 = 104

Objective 2

Objective 2 was to determine the determinant attributes used in the consumer decision making process for winter outerwear.

To ascertain the determinant attributes in the purchase decision for winter outerwear consumers were asked to first rate the importance of various criteria and then asked how they perceived these factors as differing among the various coats or jackets that were available in the marketplace during the decision making process. Table 16 shows the rated importance (in descending order) while Table 18 shows the perceived differences among the various winter outerwear garments.

TABLE 18

Difference Rating of Winter Outerwear Criteria

	RATING		
CRITERIA	BIG DIFFERENCE	SOME DIFFERENCE	LITTLE/NO DIFFERENCE
Warmth	53%	29%	18%
Price	51	36	13
Styling	49	38	13
Special Features	48	29	23
Windproofing	40	32	28
Fabric	39	32	29
Type Insulation	37	35	28
Color	34	44	22
Ease of Care	18	46	36

In this study warmth was first in rated importance and styling was third. Many respondents also perceived differences among the available coats and jackets in these fea-

tures. Warmth and styling are, therefore, likely to be determinant attributes in the consumer decision making process for winter outerwear.

Many participants perceived a difference in the price of outerwear in the marketplace, but low price was rated relatively low in importance. Special features were seen to vary among products but they too were rated relatively low in importance. Ease of care was seen as varying substantially by only 18% of participants and was also low in importance. Thus, these three features are much less likely to be determinant attributes in the purchase decision. The remaining criteria are moderate to low in importance and also show a greater variation in difference ratings. Thus, they may not prove to be determinant.

From this study, it appears that warmth and style are likely to be the major determinant attributes in the purchase decision process for winter outerwear.

Objective 3

The third objective was to determine the degree of severity of certain shopping problems related to the purchase of winter outerwear. Generally, participants in this study did not consider any of the six shopping problems cited as a major problem.

When the mean score and rank of each problem is compared to a study by Claxton and Ritchie (1978) the results are shown to be fairly similar. Claxton and Ritchie studied the shopping problems associated with a number of product and service categories including clothing, while this study investigated the problems associated with the purchase of winter coats and jackets. Only shopping problems that were applicable to this study were used. Table 19 shows the comparison of these two studies. Finding information about different clothing products (coats and jackets in this study) was the number one problem in both studies. 'Confusing or misleading claims by store sales' staff was ranked much lower (# 2 in the Claxton and Ritchie study) in this study. The problem of 'confusing or misleading information on labels and tags' was, in this study, ranked much higher (4 as compared to 7).

The displacement of 'confusing or misleading claims by store sales staff' to the lowest position in this study as compared to the second ranking in the Claxton and Ritchie study may possibly be accounted for by the study sample. Approximately 25% of the study participants were employees of a large retail department store. As many of these employees work as sales staff it may be that these respondents are more likely to have greater trust in other sales staff as well as a more positive attitude toward sales staff in general.

TABLE 19

Severity of Shopping Problems

MEAN RATING*	SHOPPING PROBLEM	RANK	RANK IN CLAXTON AND RITCHIE STUDY
2.41	Finding Information	1	1
2.37	Comparing Quality	2	4
2.11	Knowing Good Value	3	3
1.98	Confusing Info on Labels/Tags	4	7
1.97	Confusing Ads by Manufacturers	5	5
1.71	Confusing Claims by Sales Staff	6	2

* Rating scale 1 = minor problem, 5 = major problem

The shopping problem of 'confusing or misleading information on labels and tags' was rated higher in this study than in the Claxton and Ritchie (1978) study. This may be an indication that less information is available for winter outerwear garments as compared to the more general category of clothing investigated by Claxton and Ritchie.

Objective 4

Objective 4 was to determine how consumers assessed the warmth of winter outerwear, that is, what features they used to determine the warmth of the coat or jacket purchased. Twenty-five percent of the respondents indicated that the type of insulating material was the first feature considered, followed by 20% considering the outer fabric. Less

than half of the participants indicated more than one feature considered in the assessment of warmth.

Consumers were further asked to rate a number of factors which could have an effect on warmth. The type of insulating material had the highest mean rating with 74% of the respondents indicating that it was perceived as having a 'great effect' on the warmth of a winter coat. Table 20 gives the ratings of the perceived effect that various factors have on the warmth of winter outerwear.

TABLE 20

Perceived Effect of Factors on the Assessment of Warmth

Mean Rating
and
Percentage of Respondents' Rating 'Great Effect'

FACTOR	MEAN RATING*	% RATED AS HAVING A GREAT EFFECT
Type Insulating	4.60	74%
Outer Fabric	4.03	46
Presence of Lining	3.92	40
Length	3.71	28
Special Features	3.68	32
Tightness of Weave	3.45	29
Air Space	3.00	27
Thickness of Garment	2.74	15

* Rating scale: 1 = no effect, 5 = a great effect

Although there is no right way to assess the warmth of winter outerwear it is interesting to note the overall ratings of the study participants. The features used to assess warmth and the rated effects show similar results. The participants used the type of insulating material as the primary feature in determining warmth and when further asked to rate various factors, the type of insulating material was again the factor with the highest mean rating. The second highest rated factor in both questions was outer fabric.

Although the type of insulating material was the highest rated and most frequently mentioned means of assessing warmth, seventeen percent of the participants gave no response when asked what type of insulating material was used in their coat or jacket and an additional 37% indicated that they had purchased a cloth coat with no reference to the type of insulating material. There was a significant difference between the type of insulating material used in the coat purchased and the rated effect that the type of insulating material was perceived as having on the warmth of winter outerwear garments ($X^2 = 17.234$, $p = 0.0085$). Although 74% rated type of insulating material as perceived as having a great effect on warmth, those participants who had purchased cloth coats (no reference to specific insulation, approximately one-third of the study sample) and those participants who had purchased down or polyester filled coats or jackets were more likely to rate 'type of insulation' as

perceived as having a great effect on warmth. Type of insulating material was, however, rated quite low among the criteria used in the decision making process for winter outerwear.

Objective 5

Objective 5 was to determine in what form the participants would like to have warmth information communicated. The respondents were asked to rank five ways in which warmth information could be provided. More than 75% ranked 'special label sewn into the garment' as their first preference. The second most preferred form was 'removable product tags' with only 12% indicating it as their first preference.

As more than one third of the respondents indicated only one preferred form (that is, they did not rank any of the choices but indicated a preferred form only) it was not possible to perform a rank order correlation test on these data. Chi square analysis was used to test for any significant differences in the preferred form for a warmth rating system with the other variables studied. No significant differences were found.

Objective 6

Objective 6 was to determine if the provision of warmth information would be of greater importance for adults' or children's winter outerwear. As indicated in Table 21, ap-

proximately 56% of the respondents rated the provision of warmth information for children's winter outerwear to be extremely important while 69% rated it as either somewhat important or extremely important. Thirty-three percent of the participants indicated that the provision of warmth information for adults' winter outerwear was extremely important while 62% indicated it to be either somewhat important or extremely important. The results indicated that the provision of warmth information was rated somewhat more important for children's winter outerwear than it was for adults' winter outerwear.

TABLE 21

Importance of a Warmth Rating Program for Winter Outerwear

Percentage Distribution

DEGREE OF IMPORTANCE	CHILDREN'S WEAR	ADULTS' WEAR
Extremely unimportant	21%	14%
Somewhat unimportant	5	13
Neither	6	11
Somewhat important	13	29
Extremely important	56	33

* more than 100% due to rounding

Chi square analysis was used to test for any significant differences in the rated importance of providing warmth information among the different demographic and socioeconomic groups. No significant differences were found.

Objective 7

Objective 7 was to determine the sources of information consumers would use to obtain information about the warmth of winter coats and jackets. Table 22 shows that approximately 89% of the respondents indicated that they would 'refer to their own experience with previously owned garments' as a source of information, 62% indicated they would use removable product tags and 57% indicated they would obtain warmth information through discussion with friends, relatives and neighbors. The source of information that almost the entire sample indicated they would not use was 'call textile specialist for advice' (98%). Seeking information through neutral sources, such as reading Consumer Reports, was selected by 32% of the sample.

Chi square analysis was used to test for possible differences in the type of information sources that would be used to obtain warmth information among the different respondents.

A significant difference exists in obtaining warmth information through discussion with friends, relatives and neighbors [consumer-oriented sources of information] among

TABLE 22

Sources Used to Obtain Information About Warmth

Percentage Distribution

INFORMATION SOURCE	WOULD USE	WOULD NOT USE
Own Experience	89%	11%
Hang Tags	62	38
Friends, etc.	57	43
Salesperson	46	54
Consumer Reports	32	68
Advertisements	14	86
Catalogues	5	95
Textile Specialist	2	98

different age groups ($X^2 = 10.524$, $p = .0052$). Older age groups would be less likely to use consumer-oriented sources of information. A possible explanation might be that these groups would not seek any product information or they might rely on other sources of information. Consumers in this study indicated that they would rely on their own previous experience, would not use independent sources of information and would be somewhat more likely to use hang tags as a source for obtaining information about the warmth of winter outerwear.

There was also a significant difference in asking sales people for information with ownership experience of the consumer ($X^2 = 6.687$, $p = 0.0353$). Respondents with different levels of ownership showed differences in likelihood of

seeking the advice of sales people. There was a tendency for consumers who owned six or more coats (62%) to indicate that they would seek the advice of salespeople. Perhaps these consumers felt from their own previous experience that such advice was likely to be reliable. This could also be attributable to sample bias, that is, 25% of the sample was drawn from employees of a retail department store.

There was a significant difference in preference for hang tags as a source of information among males and females (X^2 = 4.006, p = 0.0453). Women indicated they would use hang tags more frequently.

Two significant differences were found in the intended use of hang tags as a source of information with familiarity (X^2 = 8.633, p = 0.0133) and use (X^2 = 8.715, p = 0.0128) of the Textile Labelling Act. Consumers who were either extremely familiar with or not at all familiar with this product information program indicated that they would use hang tags as a source of information. A possible explanation might be that those who are both familiar with and use the labelling program (an information seeker indicator) may perceive hang tags as a neutral source of information. Alternatively, users of product information programs may read all labels and tags but only integrate the neutral sources into the purchase decision process. Participants who indicated they would use hang tag information and those participants who were not at all familiar with the Textile Labelling Act

may perceive hang tags to be a reliable source of information. Among those who indicated they would not use hang tags, more appeared to be unfamiliar with the Textile Labelling Act. This suggests that they are not accustomed to seeking and using product labelling information. Similarly, no difference was found in intention to use hang tags with either familiarity with or use of the Canadian Care Labelling System.

Objective 8

Null Hypothesis 1: No significant difference exists in the importance of criteria used in the consumer decision making process for winter outerwear with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understanding of R value, purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

Rated Criteria

To test for differences among means in the rated importance of criteria used in the decision making process for winter outerwear, nonparametric one-way analysis of variance, specifically, the Kruskal-Wallis test statistic on ranked data was used. Chi square analysis was used to test for any possible differences in the rated importance of criteria among different groups.

The Kruskal-Wallis test indicated that there were no significant differences in the rated importance of criteria used in the decision making process with most of the demographic and socioeconomic variables. However, respondents from certain occupational groups rated ease of care as being more important: professionals and semiskilled clerical, sales and service individuals rated it as being more important while middle management respondents rated ease of care as being less important. Chi square analysis showed a significant difference in rated importance of ease of care with occupation ($X^2 = 15.934$, $p = 0.0433$)

Respondents with different levels of income significantly differed in the rated importance of low price as a criterion in the decision making process ($X^2 = 14.510$, $p = 0.0244$). Generally the higher the income the lower consumers rated the importance of low price. Although low price was not generally rated high in importance, the consumers with higher incomes tended to rate low price as less important than consumers in the lower income groups.

There were a number of significant differences in the rated importance of criteria with the behavioral variables.

Knowledge of R (RSI) Value: The Kruskal-Wallis test indicated that there was a significant difference in the rated importance of quality in the purchase decision making process with differences in knowledge of R (RSI) value ($p =$

0.004). Those consumers who were not at all knowledgeable about R value were more likely to rate quality as being extremely important. It was thought the opposite may actually hold true, that is, those who were knowledgeable about thermal resistance would perhaps rate quality as being more important. These consumers would, it might be assumed, know or understand the features necessary to maintain warmth in their winter outerwear purchase. Those consumers who had no knowledge of the concept of thermal resistance may rely on quality merchandise, that is, quality may ensure that the garment will meet their requirements. Chi square analysis for significance showed a similar difference in the rated importance of quality with differences in knowledge of R (RSI) value ($X^2 = 13.934$, $p = 0.0075$).

Use Behavior: The Kruskal-Wallis test indicated that there were significant differences in the rated importance of warmth and ease of care with different levels of use behavior. Those consumers who wore the coat or jacket more frequently had a greater tendency to rate warmth and ease of care as being important (warmth: $p = 0.003$; ease of care: $p = 0.042$).

Chi square analysis showed that a significant difference exists in the ratings of both ease of care and warmth with the frequency of wear (warmth: $X^2 = 16.116$, $p = 0.0029$; ease of care: $X^2 = 11.390$, $p = 0.0225$). Those consumers who wore their winter outerwear garment more frequently appear

to be more concerned about warmth features and ease of care of the garment.

Chi square analysis also showed a significant difference in ratings of both low price and fabric of the garment with how often the garment was worn (price: $X^2 = 10.808$, $p = 0.0288$; fabric: $X^2 = 9.951$, $p = 0.0413$). Consumers who wore the garment more frequently were more likely to rate low price as being less important than other consumers. Perhaps consumers who wore the garment frequently were more concerned with quality than price. Outer fabric used in the garment was rated high in importance by frequent users. It could be assumed that frequent users have found that certain fabrics withstand frequent wearings and keep them warm. It is likely that the basis for this judgment is past experience.

Purchase Experience: A significant difference exists in the rated importance of quality with purchase experience for oneself ($X^2 = 14.269$, $p = 0.0268$). With higher levels of purchase experience the rated importance of quality in the purchase decision is also higher. Consumers with more purchase experience perhaps recalled from previous buying experience those features that were important, specifically in this case, quality. Chi square analysis also showed a significant difference in rated importance of low price with purchase experience for others ($X^2 = 12.156$, $p = 0.0162$). It appears that as consumers buy more garments for others

the rated importance of low price is not as important. The reason for this particular relationship is not apparent but it is probable that as frequency of purchase increases the set of evaluative criteria expands and price becomes less important. It should be noted, however, that low price was generally rated as being very low in importance.

Chi square analysis further showed that there was a significant difference in the rated importance of fit with extent of purchasing garments for others (X^2 = 9.715, p = 0.0455). As purchase experience increases so does the importance of fit. It should be noted that fit was rated high in importance by approximately 75% of the sample.

Familiarity with and Use of Two Labelling Programs: The Kruskal-Wallis test indicated that there was a significant difference in the rated importance of brand name as a criterion in the purchase decision process with different levels of use of and familiarity with product labelling programs [an indicator of information seeking behavior] (p = 0.027). Those consumers who were more concerned about brand name were less likely to be familiar with the Textile Labelling Act.

The Kruskal-Wallis test also indicated a significant difference in the rated importance of comfort with different levels of familiarity with product labelling programs (p = 0.011). Comfort was rated as being very important by 62% of

the sample. There does not seem to be any apparent reason for the difference in rating of quality with familiarity with and use of product information programs. Responses to the use of the Textile Labelling Act indicated that all sample groups were not identical in the rating of importance of fabric used in winter outerwear garments ($p = 0.031$). Users of product information were more likely to rate fabric as being important than nonusers of product information. It might be assumed that 'information seekers' are more concerned about the functional features of winter outerwear. Chi square analysis further showed a significant difference in rated importance of fabric with use of the Textile Labelling Act ($X^2 = 10.176$, $p = 0.0376$).

The Kruskal-Wallis test showed a significant difference in the rated importance of special features with differences in use of product information programs ($p = 0.001$). Again the 'information seekers' may be more concerned with the functional or warmth criteria than other sample segments.

The rated importance of warmth significantly differed with differences in use of the Textile Labelling Act ($X^2 = 13.046$, $p = 0.0111$). The Kruskal-Wallis test showed a possible difference between the rated importance of warmth with different levels of product information use. It appears that information seekers were more likely to rate the functional or warmth criteria as being important.

There was a significant difference in the rated importance of fabric as a criterion in the purchase decision making process with different levels of familiarity with the Canadian Care Labelling System ($X^2 = 11.318$, $p = 0.0232$). This is understandable as these two concepts are similar in focus.

The Kruskal-Wallis test indicated a significant difference in the rated importance of ease of care as a criterion in the purchase decision making process for winter outerwear with differences in use behavior of the Canadian Care labelling System ($p = 0.011$). These are also similar concepts and it is understandable that those who rated ease of care high in importance were also likely to be users of this product labelling program.

There was a significant difference in rated importance of type of insulating material with use of care information ($X^2 = 11.997$, $p = 0.0174$). Those who rated type of insulation as being extremely important were also very frequent users of the care labelling system.

Table 23 summarizes the significant differences as tested by chi square and Table 24 summarizes the significant differences among the means (Kruskal-Wallis test) of the rating of criteria in the purchase decision making process with the other variables studied.

TABLE 23

Chi Square Test: Rated Criteria and Other Variables

Significant differences were found in the following rated criteria with the other variables studied.

RATED CRITERIA	OTHER VARIABLES *
Fabric	Use behavior Use of textile labelling Familiarity with care labelling
Ease of care	Occupation Use behavior
Warmth	Use behavior Use of textile labelling
Type of lining	Occupation Use of textile labelling
Low price	Income Use behavior Purchase experience (others)
Type of insulation	Use of care labelling
Quality	Knowledge of R (RSI) value Purchase experience (self)
Fit	Purchase experience (others)

* No significant differences were found in the rated importance of the following criteria used in the decision making process with the variables: comfort, windproofing, special features, brand name, color and style.

TABLE 24

Kruskal-Wallis Test Rated Criteria and Other Variables

Significant differences were found in the following rated criteria with the other variables studied.

RATED CRITERIA	OTHER VARIABLES *
Fabric	Use of textile labelling
Ease of care	Use behavior Use of care labelling
Warmth	Use behavior
Comfort	Familiarity with textile labelling
Quality	Knowledge of R (RSI) value
Special features	Use of textile labelling
Brand name	Familiarity with textile labelling

* No significant differences in the rated importance of criteria were found with the following variables: age, sex, education, occupation, income, understanding of R (RSI) value, ownership experience and familiarity with the Canadian Care Labelling System.

Ranked Criteria

Chi square analysis was used to determine any possible differences in the four most important ranked criteria or features that participants considered in this study with the other variables studied. No significant differences were found.

It was not possible to perform a rank order correlation test on these data because it would have been necessary for the participants to rank all possible choices (criteria) rather than only four out of the fourteen features as was the case in this study.

Determinant Attributes

The features or attributes that have been identified as determinant in the decision making process, that is, warmth and style were crosstabulated with other variables and chi square used to determine any possible differences. The only significant difference was for warmth (a determinant attribute) and use behavior, that is, how often the garment was worn ($X^2 = 16.116$, $p = 0.0029$). The rating of warmth as being extremely important varied with the frequency with which the winter outerwear garment was worn. Those who wore the purchased garment frequently may have bought a coat or jacket for all types of occasions including wearings of frequent and of long duration. This outerwear garment may be the only one owned or because it is frequently worn it must be one in which warmth is a primary requirement.

The findings of this study indicate that there are significant differences in the rated importance of criteria used in the decision making process for winter outerwear with differences in the other variables studied. Null hypothesis 1 is rejected.

Objective 9

Null Hypothesis 2: No significant difference exists in preference for provision of warmth information with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understanding of R value, purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

Almost 90% of the study participants indicated that they feel there should be a warmth rating program for winter outerwear. Approximately 90% of the participants further indicated that they would use a warmth rating program in the purchase decision process for winter outerwear and almost 90% indicated that they felt other consumers would also use such a rating program. When asked if the federal government should require warmth information on all winter outerwear 57% indicated they would favor such an approach, 24% were opposed and 19% were undecided.

It was felt unncecessary to use chi square analysis to test for significant differences in the preference for provision of warmth information as almost the entire sample reacted positively to the establishment and intended use of a warmth information program. Potential users of warmth information could not be profiled by either socioeconomic, demographic or by the qualitative variables used in this study. Hypothesis 9 is, therefore, not rejected. Chi

square analysis was used to test for significant differences in preference for the federal government requiring a warmth information rating program on winter outerwear with the other variables. No significant differences were found.

Objective 10

Null Hypothesis 3: No significant difference exists in shopping problems associated with the purchase of winter outerwear with the respondents' A) age, sex, level of education, occupation, income; and B) awareness and understanding of R value, purchase experience, ownership experience, use behavior, and familiarity with and use of two product information labelling programs.

Chi square anlaysis was used to test for possible differences in the six shopping problems with the other variables. There was a significant difference in 'misleading claims by sales staff' with differences in familiarity with the Textile Labelling Act ($X^2 = 11.305$, $p = 0.0233$). Of those indicating that 'misleading claims by sales staff' was a minor problem, 53% were not at all familiar with this program and 32% were extremely familiar with it.

This dichotomy might be explained as follows: those who were unfamiliar with the Textile Labelling Act may rely more heavily on the advice of sales staff for product information while those who were familiar with this Act may not seek the advice of sales staff at all. The latter group is perhaps

more self-reliant and confident (information seekers), possibly using other sources of information.

Null hypothesis 3 is not rejected except for the indication that 'information seekers' rely on sources of information other than sales staff.

To determine possible convergent validity with the results of this study discussions with manufacturers of winter outerwear were deemed advisable.

Discussions with Manufacturers of Winter Outerwear

Informal discussions with five manufacturers of winter outerwear garments were held in June 1985. The individuals interviewed were presidents, general managers or sales managers and represented men's, women's, missy, junior and children's winter outerwear manufacturers. These discussions allowed comparisons of the views of consumers with those of the manufacturers.

The set of evaluative criteria used by consumers and manufacturers (views that manufacturers hold regarding the criteria used by consumers in the decision making process) was determined to be somewhat different. Manufacturers generally considered style to be the most important criterion when evaluating winter outerwear except in children's outerwear. Quality was also an important consideration in the opinion of manufacturers. Although not necessarily a very important

criterion, manufacturers must, nevertheless, consider price in the product package mix. Price, according to one manufacturer, was indicated as being the most important criterion in children's outerwear. Other important criteria in children's outerwear, as indicated by manufacturers, are warmth, ease of care, durability as well as style. Consumers, on the other hand, indicated that warmth was a very important criterion in the alternative evaluation phase of the purchase decision making process. Not only was warmth the highest rated and ranked criterion but it was also indicated to be a determinant feature in this process. Styling was also a highly rated and ranked criterion in the purchase decision process. Warmth, manufacturers indicated, is not a very important criterion in the decision making process.

The perceived differences in the features of winter outerwear as indicated by consumers and manufacturers were not similar. In general, manufacturers felt there are few differences in the winter outerwear garments available in the marketplace. Style was mentioned as one criterion in which differences do exist and some manufacturers indicated that price and quality also show some differences. Children's outerwear was indicated to be an area where in general more differences exist. Study participants indicated that warmth and styling were perceived as having the greatest difference among the features considered in the decision process.

Consumers and manufacturers were in general agreement concerning the shopping problems associated with the purchase of winter outerwear. Shopping problems that consumers may encounter as indicated by manufacturers are: sales staff are not particularly informed about winter outerwear, there is no available means by which consumers can compare quality and little if any information, particularly about warmth, is available to consumers on winter outerwear. Consumers indicated that finding information and comparing quality were the two highest ranked problems while confusing claims by sales staff was the lowest of six cited shopping problems.

The warmth of winter outerwear is assessed differently by consumers and manufacturers. Consumers indicated that while type of insulating material was not an important criterion in the decision process it was the primary feature considered when assessing warmth. Manufacturers indicated that warmth is not understood by consumers and that insulating material used in garments depends more on what consumers want in terms of 'look' or style than on warmth. Manufacturers further indicated that consumers do not know how to assess the warmth of winter outerwear, at the same time there is little or no information available to consumers on which to compare the warmth of winter outerwear. In the past, according to manufacturers, consumers relied on weight of the garment, feel of the garment and thickness of the

garment, with preconceived ideas of what was warm and what was not. Manufacturers indicated that consumers must rely on past experience and shop around to compare quality and assess warmth of the available garments in the marketplace. Manufacturers rely on industry standards to assess warmth; a specific number of grams of fill (insulating material) are used to create warmth while consumers indicated that type of insulating material and outer fabric were the two features used to assess the warmth of the purchased winter outerwear garment.

Consumers and manufacturers are in agreement that a warmth rating program would be more beneficial in children's outerwear. The consumers in this study indicated a desire and intended use of product information for winter outerwear. Almost the entire sample indicated that not only should there be a warmth rating program but they would use this information. When asked about a warmth rating program for winter outerwear, manufacturers indicated that it might be useful to have such a program but it would be more beneficial in children's outerwear. While one manufacturer was flatly against the idea of a warmth rating system, another manufacturer advocated a warmth rating program.

Because most manufacturers were somewhat reluctant to give support to a warmth rating program they were not asked about the form for providing this information. The manufacturer who advocated a warmth rating program felt that a la-

bel sewn into the garment (the same form that was preferred by 75% of the respondents) would be the best means of providing this information. This particular manufacturer felt that the federal government should initiate such a program and ultimately be responsible for educating consumers. Other manufacturers indicated that if a warmth rating program was introduced there would need to be considerable effort put into educating both the consumer and the retailer.

At the present time manufacturers use hang tags as a means of relaying information to consumers whether about warmth, special features, quality or durability. Eighty-nine percent of the consumers, on the other hand, indicated they would rely on past experience to obtain information about warmth. Hang tags or removable product tags as well as discussions with friends, relatives and neighbors were, however, considered as a source of obtaining information about warmth. Manufacturers indicated that hang tags may be the factor that actually determines the purchase, that is, consumers want some information that lends support to or reinforces their about-to-be- made purchase decision. This finding supports a study by Lenahan et al. (1973) that product information may not be considered as a criterion in the purchase decision but rather as a source of providing consumer satisfaction and confidence in the marketing system. Consumers, furthermore, indicated that neutral sources of information would not frequently be used in the purchase de-

cision process for winter outerwear. It should be noted, however, that little product information on winter outerwear is readily available or accessible.

Manufacturers indicated that a warmth rating program would generally help consumers in the decision making process but were somewhat more guarded or reluctant to indicate the usefulness of such a program for themselves as manufacturers.

Manufacturers attribute any differences in the importance of criteria used in the consumer decision making process to age, sex and region of the country.

Chapter V

SUMMARY AND IMPLICATIONS

SUMMARY

The purpose of this consumer research study was to determine and investigate the criteria used in the purchase decision making process for winter outerwear and more specifically to determine the extent to which consumers use and would use warmth information in this process. The likely impact that a thermal resistance rating program would have on the decision making process was also investigated.

The Engel, Kollat and Blackwell (Engel and Blackwell, 1982) model of consumer behavior was used as the conceptual framework for this study. Specifically, two phases were applicable: search and alternative evaluation.

The data were obtained by means of a self-administered questionnaire from sixty-three consumers who had purchased a winter coat or jacket for the 1984/85 winter season. Chi square analysis and nonparametric one-way analysis of variance were used to test the hypotheses.

Percentage distributions were used to describe demographic and socioeconomic variables; purchase, ownership and use behavior; familiarity with and use of two product labelling

schemes; and consumers' awareness and understanding of the term R (RSI) value. Frequency and percentage distributions were used to describe the variables and to meet the objectives of the study.

The criteria used in the purchase decision making process for winter outerwear, as rated in importance, were warmth, fit, quality and comfort. Low price and brand name were rated as being the least important criteria. When consumers were asked to rank the criteria warmth, styling and fit were the top ranked features.

Manufacturers indicated that style is the most important criterion in the consumer decision making process for winter outerwear. Although one manufacturer indicated that warmth is the primary function of winter outerwear, warmth is not, according to most manufacturers, a highly rated criterion. In keeping with manufacturers' viewpoints, twenty-nine percent of the participants, when asked to state the main reason for choosing the garment purchased indicated styling.

According to this study, the determinant attributes, those features that are more influential in predisposing consumers to an actual purchase, were warmth and styling.

The shopping problems associated with the purchase of winter outerwear as indicated by consumers were, in order of highest mean rating, finding information about different coats and jackets, comparing quality of different coats and

jackets and knowing when an item is good value for the money. Manufacturers also indicated that consumers have difficulty obtaining information and comparing quality of coats and jackets in the marketplace.

The features that buyers of winter outerwear considered to assess the warmth of a coat or jacket were type of insulating material and outer fabric used in the garment.

Buyers of winter outerwear were asked to indicate the form in which they would like to have warmth information communicated. The first preference was a special label sewn into the garment, a distant second preference was removable product tags. Because manufacturers were somewhat reluctant to give support to a warmth rating program they were not asked to indicate the preferred form for providing this information.

Almost 90% of the buyers of winter outerwear indicated that there should be a warmth rating program and that it would be somewhat more important for children's outerwear than for adults' winter outerwear. Most manufacturers felt that a warmth rating program would be somewhat helpful to consumers especially for children's outerwear but generally not helpful to manufacturers.

To obtain information about the warmth of winter coats and jackets, buyers indicated that they would refer most often to their own experience and somewhat less frequently to

removable product tags and discussion with friends, relatives and neighbors. Seeking information through independent sources was not a frequently considered choice. Manufacturers, on the other, used hang tags as a means of disseminating information to consumers. According to manufacturers the only information (not necessarily about warmth) currently available is that which is provided on hang tags by the manufacturers.

Chi square analysis was used to test for significant differences in the rated importance of criteria with socioeconomic, demographic and other variables. The only significant differences were in the rated importance of low price with income and in the rated importance of ease of care of the purchased garment with occupation. At higher income levels, low price is less important. There were significant differences in ratings of outer fabric, ease of care, warmth and low price as criteria in the purchase decision process with frequency of wear. There were significant differences in ratings of low price, quality and fit as criteria in the purchase decision process with purchase experience. There was also a significant difference in the rated importance of quality with knowledge of R (RSI) value (a measure of thermal resistance). There were also significant differences in the ratings of outer fabric, warmth, type of lining and type of insulation with familiarity with and use of product information programs (information seekers).

The Kruskal-Wallis test (nonparametric one-way analysis of variance) was used to test for any differences in the rated importance of criteria with the variables studied. There was a significant difference in the rated importance of ease of care with both the frequency of wear (use behavior) and use of one of the labelling programs ('information seeker' indicator). The rated importance of quality varied with consumers' knowledge of R value (a measure of thermal resistance) and the rated importance of warmth varied with use behavior. Brand name and comfort varied with familiarity with textile labelling ('information seeker' indicator) while fabric and special features varied with use of textile labelling ('information seeker' indicator). The importance of practical or functional criteria, that is, ease of care, outer fabric, warmth, type of lining, type of insulating material and comfort varied with the level of information seeking behavior. Hypothesis 1, there is no difference in the rated importance of criteria used in the decision process for winter outerwear with the sample population segments, was rejected.

Approximately 90% of the study participants indicated that there should be a warmth rating program for winter outerwear, that they would use such a program and further indicated that other consumers would use this product information. Fifty-seven percent of respondents indicated that they would be in favor of the federal government requiring

warmth information on all winter outerwear. The second hypothesis, there is no difference in preference for provision of warmth information with the sample population segments, was not rejected. Although one manufacturer advocated a warmth rating program and indicated that it would be helpful to both consumer and manufacturer most manufacturers did not favor a warmth rating program. This manufacturer indicated that the rating should be on a label sewn into the garment and that the federal government should require such a program on all winter outerwear garments and be responsible for educating both consumer and retailer.

There was a significant difference in the rating of the shopping problem 'misleading claims by sales staff' as a minor problem with familiarity with the Textile Labelling Act ('information seeker' indicator). The third hypothesis, there is no difference in the severity of shopping problems associated with the purchase of winter outerwear with the sample population segments, was not rejected except for the indication that 'information seekers' rely on sources of information other than sales staff.

IMPLICATIONS OF THE FINDINGS

The Engel, Kollat and Blackwell model of consumer behavior was used to interpret the consumers' decision making process. The two phases of the model under investigation in this study were search and alternative evaluation. The fo-

cus of the implications of the findings is on sources of information and the set of evaluative criteria used in the consumer decision making process for winter outerwear.

Sources of Information

Findings of this study indicate a tendency for consumers to rely on internal sources for assessment of warmth. Depending on whether or not consumers are satisfied with their choice and hence feel confident with their ability to assess warmth without additional information, a warmth rating program may or may not be perceived as beneficial.

Participants indicated the preferred form for a warmth rating program to be a special label sewn into the garment. This is the same manner in which textile and care information is currently provided. Manufacturers indicated that while consumers may say they use the current textile and care information programs they do not understand or know how to interpret and integrate this information into the decision making process. The doubts about the use and comprehension of existing textile and care information suggest that should a warmth rating program be established, research into the design of the information must be conducted to ensure effective communication. The large percentage of respondents who favored a warmth rating program seem to indicate that consumers would use the program if the information is communicated effectively.

In this study, consumers who are not information seekers are more likely to regard hang rags as a reliable or neutral source of information. As there was an indication that consumers who are not information seekers more often seek the advice of store sales staff it might be helpful to direct consumer education programs to sales staff. This was a source that participants indicated they would use to obtain information about warmth.

Evaluative Criteria

Consumers indicated that a warmth rating would be slightly more important for children's outerwear than for adults' outerwear. There was a general consensus among manufacturers that a warmth rating for children's outerwear would be beneficial and helpful to consumers. This is perhaps an indication that children need more warmth protection as they are unable to judge when they are cold. It appears that a different set of evaluative criteria would be used for the purchase of children's outerwear even though it is assumed that adults are the buyers of children's outerwear. Marketing strategies for children's outerwear could include those features that are considered to be more important, in this case, warmth, durability and ease of care. Retailers could also benefit by emphasizing criteria that are considered more important. If a warmth rating program was implemented, children's wear would possibly be a more feasible target.

As the set of evaluative criteria used by consumers and manufacturers is somewhat different it would be helpful and useful to manufacturers to know that consumers considered warmth to be a very important criterion in the decision making process. If manufacturers knew that warmth was as important as consumers indicated they might be more inclined to consider the merits of a warmth rating program. Manufacturers knowing that warmth along with style were, according to this study, the determining factors in the purchase decision process could aim their marketing strategies around these features. At present, warmth appears to have a very low profile in the marketing strategy of most manufacturers. It is interesting to note that styling is one of only three features or criteria that showed no variation. As suggested by Sproles (1979), styling is perhaps a more universally important criterion in the purchase decision making process.

The set of evaluative criteria also varied with frequency of wear, degree of information seeking behavior and level of purchase experience. Marketing strategies could be developed to include the criteria that these profiled groups considered to be important.

THE LIKELY IMPACT OF A WARMTH RATING PROGRAM ON DECISION MAKING

While findings of this study cannot support a definitive statement of the likely impact that a warmth information rating program would have on the decision making process, one can speculate by examining the findings and attempt to identify the opportunities for and the barriers against providing product information.

As the findings of this study indicated that the provision of warmth information for children's outerwear was somewhat more important than for adults' outerwear, children's winter outerwear could be the initial target for implementation of a warmth rating program. Liefeld (1976) and Day (1976) have indicated that the long-run effects of product information are greater than the immediate effects. Over a period of time buyers will be exposed to new information through consumer education and as a result of repeat purchases. Continued exposure to product information will lead to greater awareness, comprehension, familiarity with and eventual emphasis and value placed on the information as well as possible incorporation of that information into the decision making process. Under the assumption that adults are the buyers of children's outerwear, initial exposure to a warmth rating program aimed at children's outerwear would result in assimilation of information, the effects of which might manifest themselves in purchases other than children's outerwear. The impact, in this case, would be a gradual one.

Findings of this study indicate that consumers tended to rely on their own experience in assessing warmth. Since the reasons for this behavior is unknown, one can postulate that if consumers do not require additional information to assess warmth, a warmth rating program will make little impact on decision making. However, there seems to be evidence in this study that proxy indicators (Day, 1976) were being used. Buyers of winter outerwear in this study indicated that type of insulating material and outer fabric were used to assess warmth. The introduction of a warmth rating program will validate the use of these proxy indicators, or on the contrary, correct consumers' misconceptions of warmth.

The findings of the present study indicate that warmth information is not only wanted by consumers but that it would provide information on an attribute that consumers considered to be very important. Consumers, however, appear to know and understand very little about the concept of warmth; a point that was reiterated by manufacturers. Baird and Brier (1981) found that consumers did not know how to properly evaluate or judge a product. Manufacturers added credence to this point by indicating that previous methods of determining warmth by feel and weight are no longer adequate for the variety of textile products available. It seems that with the provision of a warmth rating program, the gap between what consumers considered important and what manufacturers indicated that consumers do not understand

could be narrowed or eliminated. If familiarity with and use of two product labelling programs are an indication of use of neutral sources of information then it might be inferred that buyers of winter outerwear would indeed use a warmth rating program in the purchase decision making process.

While there seems to be some support for a warmth rating program, there are also indications of barriers. While proposals for new product information disclosures are often based on the premise that consumers have a 'right to know' regardless of the costs of implementing and maintaining a product information program, the provision of comparative information may involve the setting of complex standards and testing methods as well as expensive compliance investigation and testing.

Although discussions with manufacturers were brief and informal, there are indications of resistance by manufacturers to the implementatiaon of a warmth rating program. Unless the perceived resistance is removed or tempered the enforcement of a warmth rating program may generate strain in the marketing environment.

While there are a number of barriers against the implementation of a warmth rating program, it appears that the opportunities for the implementation outweigh these barriers. It is recommended that a warmth rating program should

be established but not until further research is undertaken in this area.

Although complete protection of consumer rights may not be possible or even desirable some means of providing product safety, quality and value comparisons are warranted as indicated by the findings of a study by Wall (1974). If a warmth rating program was established by the federal government, efforts will have to be made to establish standardized methods of evaluating warmth of textile products. The government would need to educate the manufacturer, retailer and the consumer to ensure that the information is properly disseminated, understood and used in the purchase decision making process for winter outerwear. The consumer could benefit by using a warmth rating program if manufacturer and retailer are properly informed and support such a program.

IMPLICATIONS FOR FUTURE RESEARCH

Further studies on the impact of a warmth rating program on the consumer decision making process might concentrate on different age groups, male versus female, other regions particularly with different winter conditions and the role of retail buyers, managers and sales staff in this process. A more represenatative sample (less education, less income and older than the participants in the present study) as well as a study of the buyers of childrens' outerwear might show considerable differences in the importance of criteria used

in decision making. As it was difficult to find study participants, it might be useful to intercept buyers of winter outerwear at the height of the buying season at stores and shopping centres.

Other research studies might include a narrowing of scope with concentration on warmth criteria and related topics, such as, the use of proxy indicators in the decision process. Other research studies might determine a suitable and understandable reporting format for a warmth rating program. Experimental treatments with education on warmth information at both the consumer and retail level could give an indication of the incorporation and possible impact of consumer education on the decision making process. Further studies might examine the importance of a warmth rating as one of the criteria (in the presence of other criteria) in the purchase decision making process. A more in-depth study of the decision process might determine the trade-offs, minimun or cut-off levels for certain criteria or the actual decision style used by buyers of winter outerwear. Studies with manufacturers might include the sale of garments with and without warmth rating labels to determine the impact of such a program at both the retail and consumer level.

BIBLIOGRAPHY

Aaker, David., & Day, George S. (1982). A guide to consumerism. In D. A. Aaker & G. S. Day (Eds.) Consumerism: Search for the Consumer (4th ed. pp. 2-18). New York: The Free Press.

Alpert, Mark I. (1971, May). Identification of determinant attributes: A comparison of methods. Journal of Marketing Research, 8, 184-191.

Alpert, Mark I. (1980). Unresolved issues in identification of determinant attributes. In J. C. Olson (Ed.), Advances in consumer research (Vol. 7, pp. 83-88). Ann Arbor: Association for Consumer Research.

Anderson, C. D. (1977). Consumer behavior and energy information labels for home appliances. Paper presented at the CAAS 1977 Conference, The University of New Brunswick.

Auliciems, Andris, De Freitas, Christopher R., & Hare, F. Kenneth. (1973). Winter clothing requirements for Canada (Climatological Studies No. 22). Toronto: Environment Canada.

Baird, John C., & Brier, Judith M. (1981). Perceptual awareness of energy requirements of familiar objects. Journal of Applied Psychology, 66 (1), 90-96.

Bettman, James R. (1979). An information processing theory of consumer choice. Reading, MA: Addison-Wesley Publishing Company, Inc.

Brandt, W. K., Day, W. S., & Deutscher, T. (1975, Summer). Information disclosure and consumer credit knowledge: A longitudinal analysis. Journal of Consumer Affairs, 9, 15-31.

Brody, Robert P., & Cuningham, Scott M. (1968). Personality variables and the consumer decision process. Journal of Marketing Research, 15, 50-57.

Capon, Noel, & Lutz, Richard J. (1979). A model and methodology for the development of consumer information programs. Journal of Marketing, 43, 58-67.

Claxton, J. D., Fry, J. M., & Portis, B. (1974, December). A taxonomy of prepurchase information gathering patterns. Journal of Consumer Reserach, 1, 18, 80.

Claxton, John D., & Ritchie, J. R. Brent. (1978, July). Consumers' perceptions of prepurchase shopping problems & solutions. Vol. 1, Research Findings. Unpublished manuscript.

Claxton, John D., & Ritchie, J. R. Brent. (1978, July). Consumers' perceptions of prepurchase shopping problems & solutions. Vol. 2, Appendices & Annexes. Unpublished manuscript.

Claxton, John D., Ritchie, J.R. Brent, & McDougall, Gordon H.C. (1983, Summer). Energy conservation options for Canada: A nationwide survey of consumer option. Journal of Consumer Affairs, 17 (1), 14-37.

Cocivera, Mary. (1980, September/October). The stuff that warmth is made of. Outdoor Canada, pp. 43-46.

Comfort indoors. (1984, September). Textile Horizons, pp. 20-22.

Conover, W.J. (1980). Practical nonparametric statistics (2nd ed.). New York: John Wiley & Sons.

Consumer and Corporate Affairs Canada. Enerquide directory 1983.

Consumer and Corporate Affairs Canada (1984, March). Guidelines to the Canadian care labelling system (Information Bulletin No. 6).

Consumer and Corporate Affairs Canada. (1979). Labels tell the fabric story.

Cox, Donald F. (1967). Risk taking and information handling in consumer behavior. Boston: Harvard University Graduate School of Business Administration.

Crosby, Lawrence A., & Taylor, James R. (1981, June). Effects of consumer information and education on cognition and choice. Journal of Consumer Research, 8, 43-56.

Currie, Raymond F., & Ursel, E. Jane (1984). Winnipeg area series report no: 3: Selected findings from the 1984 Winnipeg area study. Winnipeg, MB: Institute for Social and Economic Research: The University of Manitoba.

Day, George S. (1975, Winter). Full disclosure of comparative performance information to consumers: Problems and prospects. Journal of Contemporary Business, 4, 53-68.

Day, George S. (1976, April). Assessing the effects of information disclosure requirements. Journal of marketing, 40, 42-52.

Dedic, Bette Jo, & Hilliker, JoAnn. (1982). STAYWARM with clothing [Computer Program and User's Manual]. University of Kentucky, College of Agriculture, Cooperative Extension Service.

Engel, James F. & Blackwell, Roger D. (1982). Consumer behavior (4th ed.). Chicago: The Dryden Press.

Fourt, Lyman, & Hollies, Norman R.S. (1970). Clothing comfort and function. New York: Marcel Dekkar, Inc.

Hermann, Robert O. (1980, May). Consumer protection: Yesterday, today and tomorrow. Current History, 78 (457), 195-196, 226-227.

Heslop, Louise A. (1979). An annotated bibliography related to providing performance to consumers, Vol 1. Canadian Standards Association.

Horne, Lena, & Crown, E.M. (1983, Fall). The use of information sources in the purchase of home furnishing textile products. Canadian Home Economics Journal (Research Section),(4), 227-232.

Katon, George & Mueller, Eva A. (1955). A study of purchase decision. In Lincoln H. Clark (ed.), Consumer Behavior: The dynamics of consumer reaction. New York: University Press.

Lenahan, R.J., Thomas J.H., Taylor, D.A., Call, D.L., & Padberg, D.I. (1973, Spring). Consumers reactions to nutritional labels on food products. Journal of Consumer Affairs, 7, 1-12.

Liefeld, John. (1973, June). European Informative Labelling (Consumer Research Report No. 5). Department of Consumer and Corporate Affairs Canada.

Liefeld, John. (1976). Product information preference of disadvantaged consumers. Ottawa: Consumer Research Council Canada.

Margerum, B.J. (1984, March). Perceived fiber preferences for cold weather indoor clothing. Textile Chemist and Colorist, 16 (3), 63(25)-28(66).

McCullough, E.A. (1981). Insulating yourself against the elements. Science year - the world book science annual 1982 (pp. 347-349). Chicago: World Book-Child Craft International, Inc.

McCullough, Elizabeth A., & Rohles Frederick H. Jr. (1983, April). Quantifying the thermal protection of outdoor clothing systems. Human Factors, 25 (2), 191-198.

Miller, J.A. (1978). Labeling research - The state of the art. Cambridge, MA: Marketing Science Institute.

Myers, James H. & Alpert, Mark I. (1968, October). Determinant buying attitudes: Meaning and measurement. Journal of Marketing, 32, 13-20.

Newman, Joseph W., & Staelin, Richard. (1973). Information sources of durable goods. Journal of Advertising Research, 13 19-29.

Newman, Joseph W., & Staelin, Richard. (1972). Prepurchase information seeking for new cars and major household appliances. Journal of Marketing Research, 9, 249-257.

O'Brien, T. (1972). Information use in consumer decisions. Proceedings of the 80th annual convention of the American psychological association, pp. 733-734.

Pineo, Peter C., Porter, John, & McRoberts, Hugh A. (1977). The 1971 Census and the socioeconomic classification of occupations. In Canadian Review of Sociology and Anthropology (vol. 14, pp. 91-107).

Polegato, Rosemary & Wall, Marjorie. (1980, May). Information seeking by fashion opinion leaders and followers. Home Economics Research Journal, 8, 327-338.

Ray, Robert D. (1981). The thermal performance of a continental quilt. Journal of Consumer Studies and Home Economics, 5, 37-43.

Sleeping bags for backpacking. (1977). Consumer Reports, 42, 355-360.

Sproles, George B., (1979). Fashion: Consumer behavior toward dress. Minneapolis, MN: Burgess Publishing Company.

Sproles, George B., Geistfeld, Loren V., & Badenhop, Suzanne B. (1978, Summer). Information inputs as influences on efficient consumer decison-making. The Journal of Consumer Affairs, 12, (1), 88-103.

Sproles, George B., Geistfeld, Loren V., & Badenhop, Suzanne B. (1980, Summer). Types and amounts of information used by efficient consumers. Journal of Consumer Affairs, 14 (1), 37-48.

Statistics Canada. (1980, December). Social concepts directory.

Steadman, Robert G. (1980). Minimizing total costs of apparel, housing and heating in maintaining thermal comfort indoors. Journal of Consumer Studies and Home Economics, 4, 223-238.

Throelli,Hans B., & Thorelli, Sarah V. (1977). Consumer information systems and consumer policy. Cambridge, MA: Ballinger Publishing Company.

Tryfos, Peter, & Fenwick, Ian. (1984). An interim assessment of the enerquide program. Consumer and Corporate Affairs Canada.

Wall, Marjorie W. (1974). Consumer satisfaction with clothing wear and care performance and consumer communication of clothing performance complaints. Unpublished doctoral dissertation, Ohio State University, Columbus.

Wilkie, William L. (1975, March). Consumer information processing research: Product labeling. (working paper). Cambridge, MA: Marketing Science Institute.

Wilkie, William L. (1977). Consumer information processing and public policy research. In John F. Cady (Ed.), Marketing and the public interest (pp. 223-237). Cambridge, MA: Marketing Science Institute.

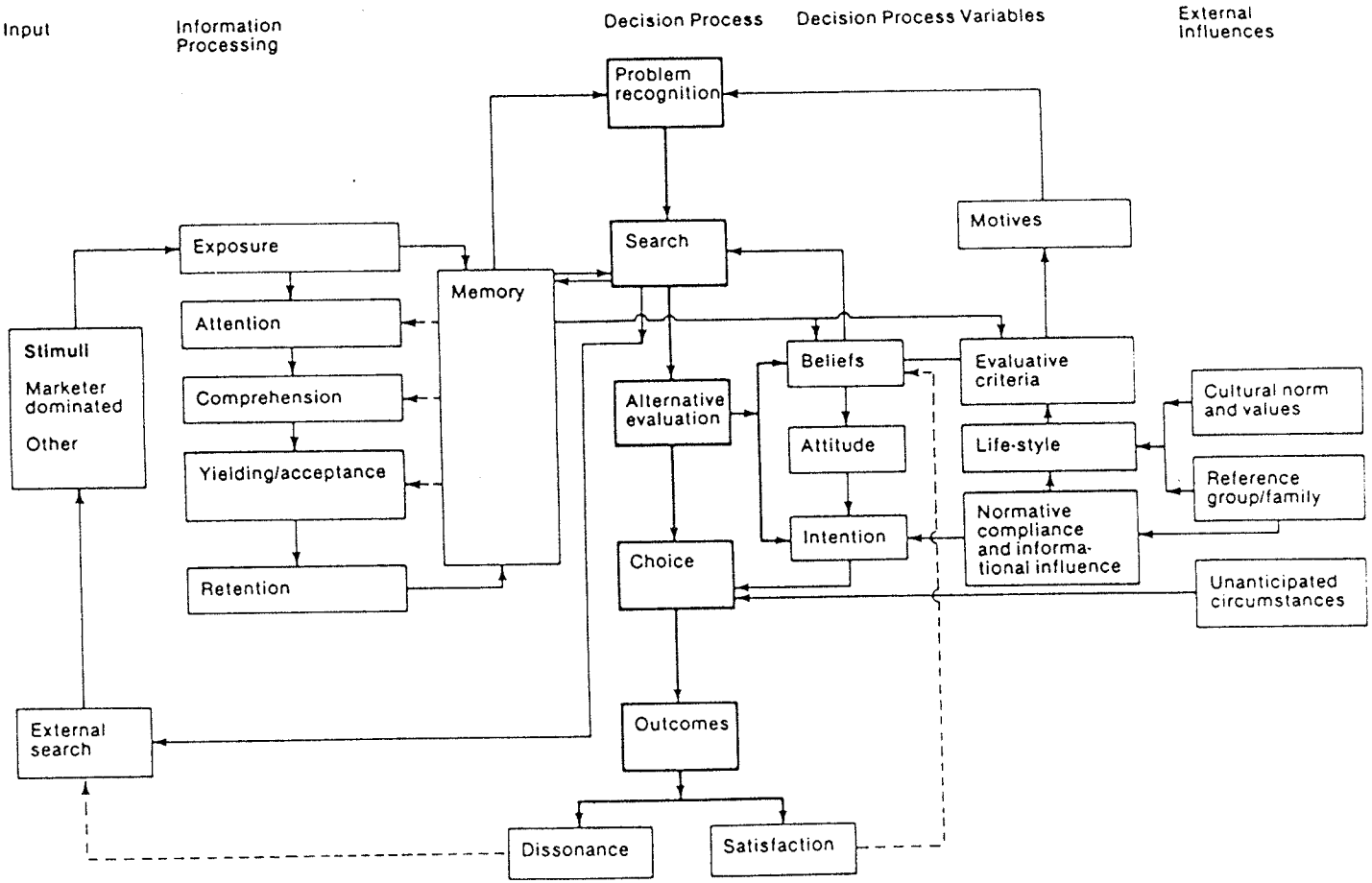
Wilkie, William L. (no date). How consumers use product information: An assessment of research in relation to public policy needs. Cambridge, MA: National Science Foundation.

Wilkie, William L., & Gardner, David M. (1974, January). The role of marketing research in public policy decision making. Journal of Marketing, 38, 38-47.

Appendix A

CONSUMER BEHAVIOR MODEL

The EKB Model



(Source: Engel and Blackwell, 1982)

Appendix B

INITIAL CONTACT LETTER

TY OF MANITOBA

FACULTY OF HUMAN ECOLOGY
Department of Clothing and Textiles

Winnipeg, Manitoba
Canada R3T 2N2

(204) 474-8137

March 22, 1985

Dear Members:

I am writing to seek the cooperation of members of your organization in a research project that we are undertaking. The purpose of this study is to determine the features consumers consider important when purchasing a winter coat or jacket.

I feel that members of your organization, as consumers, will be particularly interested in participating in this study as the results may prove to be of importance in future winter outerwear purchases. I will be more than happy to supply your club with the results of this study upon its completion.

If members of your organization have purchased a winter coat or jacket (not a fur coat and not exclusively for skiing or jogging) since July 1984 and are willing to fill out a short questionnaire please ask them to pick up a questionnaire after the meeting today. All information from the questionnaires will be kept strictly confidential. The questionnaire will take less than twenty minutes to complete.

Your coooperation is very much appreciated and invaluable to the success of this consumer study. It is hoped that as a result of this study a better understandng of the purchasing behavior of consumers of winter outerwear will be gained as well as helping develop programs to make consumers better informed about products in the marketplace.

If you require additional information please contact Mary Elias, my research assistant, at 474-9292 or myself at the above telephone number.

Appendix C

QUESTIONNAIRE

ERSITY OF MANITOBA

FACULTY OF HUMAN ECOLOGY
Department of Clothing and Textiles

Winnipeg, Manitoba
Canada R3T 2N2

(204) 474-8137

CONSUMER STUDY ON WINTER COAT AND JACKET BUYERS

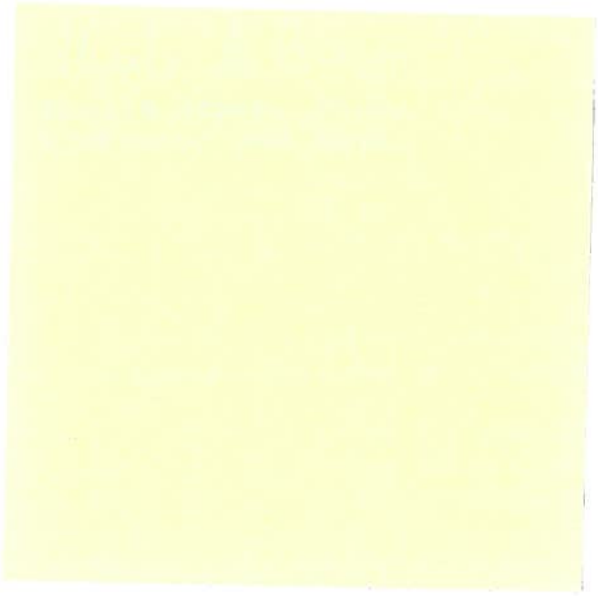
Thank you for agreeing to participate in this research project on winter outerwear. The purpose of this study is to determine the features consumers consider important when purchasing a winter coat or jacket. Your participation will involve completing the enclosed questionnaire.

The questionnaire will take twenty minutes or less to complete. When complete please return it in the enclosed self-addressed stamped envelope. All information from the questionnaires will be kept strictly confidential; your name will not be associated in any way with the information collected. Please do not write your name on the questionnaire.

Your participation in this study is invaluable to its success. It is hoped that a better understanding of consumers in Manitoba will be gained as a result of this study.

Your cooperation is very much appreciated.

Yours sincerely,



THE DEPARTMENT OF CLOTHING AND TEXTILES

SURVEY OF WINTER COAT AND JACKET BUYERS

SECTION A

please think about the most recent WINTER COAT OR JACKET that you bought FOR YOURSELF for everyday use (e.g., a coat or jacket that you wear frequently, that you wear when going to and from work, school, shopping, errands, etc.; NOT EXCLUSIVELY FOR SKIING, JOGGING, ETC. AND NOT A FUR COAT OR JACKET).

1. Was this purchase a

   1. _____ coat
   2. _____ jacket

1a. What was the price of this coat/jacket? _____

2. Please describe this coat:

   1. outer fabric, if known _____
   2. closure (button, zipper or combination) _____
   3. insulating material, if known
      1. _____ polyester-filled
      2. _____ down-filled
      3. _____ cloth, but not down- or polyester-filled
      4. _____ other, please specify, if known _____
   4. special features (hood, storm cuffs, etc.) _____
      _____

3. How long ago did you purchase this coat? _____

4. How often is this coat/jacket worn (especially in relation to other coats/jackets that you own)?
   1. _____ seldom
   2. _____ occasionally
   3. _____ often
   4. _____ almost always

5. For what type of occasions do you wear this coat/jacket? (Please check as many as are appropriate)

   1. _____ going to and from work and/or school
   2. _____ going shopping
   3. _____ evening entertainment (dinner, movie, theatre, etc.)
   4. _____ while at work
   5. other, please specify _____
      _____

6. People consider different features when selecting a winter coat or jacket. Below is a list of features that you may or may not have considered important when you were choosing this coat or jacket.

For each feature please circle the number that you feel indicates how important that feature is to you.

FEATURE	IMPORTANCE TO YOU WHEN CHOOSING A WINTER COAT/JACKET				
	NOT AT ALL IMPORTANT				EXTREMELY IMPORTANT
Brand name	1	2	3	4	5
Fabric	1	2	3	4	5
Ease of care	1	2	3	4	5
Warmth	1	2	3	4	5
Color	1	2	3	4	5
Type of lining	1	2	3	4	5
Styling	1	2	3	4	5
Low price	1	2	3	4	5
Type of insulating material	1	2	3	4	5
Comfort	1	2	3	4	5
Windproofing	1	2	3	4	5
Quality	1	2	3	4	5
Fit	1	2	3	4	5
Special features (hood, storm cuffs, etc,)	1	2	3	4	5
Other considerations? (if so, please specify and circle)					
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5

7. Using the features in question #6, please RANK THE FOUR MOST IMPORTANT FEATURES you considered when purchasing this coat/jacket.

1. The most important feature _____
2. The second important feature _____
3. The third important feature _____
4. The fourth important feature _____

8. Please give the MAIN REASON why you chose this particular coat or jacket. _____

9. Overall, are you satisfied or dissatisfied with this purchase?

1. _____ very dissatisfied
2. _____ somewhat dissatisfied
3. _____ neither satisfied nor dissatisfied
4. _____ somewhat satisfied
5. _____ very satisfied

10. Please indicate why you are SATISFIED with this purchase - try to state one overriding reason? _____

_____

11. Is there one reason why you are particularly unhappy or DISSATISFIED with this purchase? If yes, please indicate.

_____

12. Of the coats/jackets available in the marketplace when you made this purchase please indicate the DIFFERENCE YOU FEEL EXISTED among the following features. For each feature circle the appropriate number.

FEATURE	DIFFERENCE IN COAT/JACKETS				
	NOT AT ALL DIFFERENT				EXTREMELY DIFFERENT
Styling	1	2	3	4	5
Price	1	2	3	4	5
Colors available	1	2	3	4	5
Fabric	1	2	3	4	5
Ease of care	1	2	3	4	5
Special features	1	2	3	4	5
Warmth	1	2	3	4	5
Insulating material	1	2	3	4	5
Windproofing	1	2	3	4	5
Other factors? (please specify and circle)					
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5

13. What features, if any, did you use to assess the warmth of this coat/jacket? _____

_____

SECTION B

14. If you wanted to find out how warm different coats/jackets would be, would you: (Please check as many as you think are appropriate)

1. _____ read advertisements in newspapers or magazines
2. _____ look through retail store catalogues
3. _____ discuss with friends, relatives or neighbors
4. _____ ask salesperson
5. _____ refer to your own experience with coat/jackets previously owned
6. _____ read Consumer Reports, Canadian Consumer or Consumer Buying Guide
7. _____ call textile specialists for advice
8. _____ look at hang tags on coats and jackets
9. other, please specify

_____
_____
_____

15. The WARMTH of a winter coat/jacket is determined by a number of factors. For each factor please circle the number that you feel indicates how each factor affects warmth. PLEASE DO NOT GUESS (if you do not know please check the 'don't know' space).

FACTOR	EFFECT ON WARMTH					
	NO EFFECT				A GREAT EFFECT	DON'T KNOW
Thickness of garment	1	2	3	4	5	___
Tightness of weave	1	2	3	4	5	___
Outer fabric	1	2	3	4	5	___
Air space	1	2	3	4	5	___
Length of garment	1	2	3	4	5	___
Special features (hood, storm cuffs, etc.)	1	2	3	4	5	___
Presence of lining	1	2	3	4	5	___
Type of insulating material . . .	1	2	3	4	5	___
Other, please specify and cirlce						
_____	1	2	3	4	5	___
_____	1	2	3	4	5	___
_____	1	2	3	4	5	___

16. Please indicate how much you agree or disagree with each of the following statements. (circle the appropriate number for each statement)

THE PRICE OF A COAT/JACKET IS AFFECTED BY:

	STRONGLY DISAGREE				STRONGLY AGREE
the brand name	1	2	3	4	5
the fabric used	1	2	3	4	5
the amount of insulating material .	1	2	3	4	5
the styling	1	2	3	4	5
the type of insulating material . .	1	2	3	4	5
the special features	1	2	3	4	5
the store where purchased	1	2	3	4	5

SECTION C

17. Below is a list of things which may or may not have been of concern to you when shopping for your WINTER COAT/JACKET. How much was each a PROBLEM FOR YOU? (Please circle the appropriate number for each statement)

	A MINOR PROBLEM				A MAJOR PROBLEM
Knowing when an item is good value for the money	1	2	3	4	5
Comparing quality of different coats and jackets	1	2	3	4	5
Confusing or misleading claims by store sales staff	1	2	3	4	5
Finding information about different coats and jackets	1	2	3	4	5
Confusing or misleading information on labels or tags . . .	1	2	3	4	5
Confusing or misleading ads by companies that make coats and jackets	1	2	3	4	5

Section D

18. Have you heard of the term 'R value' (RSI value)?

1. _____ yes
2. _____ no

19. How knowledgeable are you about the term 'R value' (RSI value)?

1. _____ not at all knowledgeable
2. _____ slightly knowledgeable
3. _____ somewhat knowledgeable
4. _____ extremly knowledgeable

20. What do you understand by the term 'R value' (RSI value)?
_____
_____

21. What items are you aware of that have an 'R-value' (RSI value)?
Please list as many as you can. _____
_____
_____

SECTION E

This section deals with the provision of warmth information, that is, a means by which to assess warmth.

22. Do you feel there should be a warmth rating on winter coats and jackets?

1. _____ yes
2. _____ no

23. Do you feel that consumers would use a warmth rating (if available) in the purchase of coats/jackets?

1. _____ yes
2. _____ no

24. Would you use a warmth rating in the purchase of coats/jackets?

1. _____ yes
2. _____ no

25. Do you feel that the federal government should require warmth information on all winter outerwear clothing?

1. _____ yes
2. _____ no
3. _____ undecided

26. please indicate how important you feel the provision of warmth information is for the following:

1. CHILDREN'S winter coats and jackets

1. _____ extremely unimportant
2. _____ somewhat unimportant
3. _____ neither important nor unimportant
4. _____ somewhat important
5. _____ extremely important

2. ADULT'S winter coats and jackets

1. _____ extremely unimportant
2. _____ somewhat unimportant
3. _____ neither important nor unimportant
4. _____ somewhat important
5. _____ extremely important

27. Assuming that a warmth rating program for winter coats and jackets will be introduced, in what form would you prefer to have this information communicated?

PLEASE RANK THE FOLLOWING (1 being your first preference):

1. _____ reading about it in newspaper or magazine advertisements
2. _____ special label sewn into the garment
3. _____ salesperson
4. _____ pamphlets and in-store displays
5. _____ removable product tags
6. _____ other, specify _____

SECTION F

28. How many coats and/or jackets do you now own? _____

29. How many coats/jackets have you purchased in the past 5 years?

for yourself _____
for others _____

Section G

30. Are you familiar with the Textile Labelling Act? (please circle the appropriate number)

NOT AT ALL FAMILIAR 1 2 3 4 5 EXTREMELY FAMILIAR

31. To what extent do you USE the information provided by the Textile Labelling Act when purchasing clothing?

1. _____ never
2. _____ seldom
3. _____ occasionally
4. _____ often
5. _____ always

32. Are you familiar with the Canadian Care Labelling System? (please circle the appropriate number)

NOT AT ALL FAMILIAR 1 2 3 4 5 EXTREMELY FAMILIAR

33. To what extent do you USE the information provided by the Care Labelling System when purchasing clothing?

1. _____ never
2. _____ seldom
3. _____ occasionally
4. _____ often
5. _____ always

Section H

The following information will be used for statistical analysis only. All responses will be coded anonymously and be kept strictly confidential.

34. Your age:

1. _____ under 25 years
2. _____ 25 to 34 years
3. _____ 35 to 44 years
4. _____ 45 to 54 years
5. _____ 55 to 64 years
6. _____ 65 years and over

35. Are you

1. _____ Male
2. _____ Female

36. What is the highest level of education that you have completed. Please check the appropriate level completed.

_____ No formal schooling
_____ Elementary School
_____ High School
_____ Non-University (Voc/Tech, Nursing Schools)
_____ University graduate
_____ Post-graduate degree

37. OCCUPATION: Please describe what you do (use job title if it describes what you do) and the kind of company or firm for which you work (e.g., clerk in grocery store, elementary school teacher, professional engineer in own consulting firm). IF RETIRED PLEASE DESCRIBE WHAT YOU DID AND THE KIND OF FIRM FOR WHICH YOU WORKED.

Occupation _____

Place _____

38. Employment status:

_____ employed full-time
_____ employed part-time
_____ unemployed
_____ retired
_____ in school
_____ homemaker
_____ other (specify) _____

39. Including yourself what is the number of people living at home in your household? _____

1. _____ How many are children under 6 years of age
2. _____ How many are children from 7 - 12 years of age
3. _____ How many are children from 13 - 19 years of age

40. What is the TOTAL INCOME of all the members of this household for this past year before tax and deductions? Please check the appropriate category.

1. _____ under $10,000
2. _____ $10,000 - 14,999
3. _____ $15,000 - 19,999
4. _____ $20,000 - 24,999
5. _____ $25,000 - 29,999
6. _____ $30,000 - 34,999
7. _____ $35,000 - 39,999
8. _____ $40,000 - 49,999
9. _____ $50,000 - 59,999
10. _____ $60,000 - 69,999
11. _____ $70,000 +

THANK YOU FOR YOUR HELP IN COMPLETING THIS QUESTIONNAIRE.

Appendix D

FREQUENCY DISTRIBUTIONS AND EXPLANATION OF VARIABLES AND VALUES.

```
COL     VARNAME       VARLABEL

1-3     ID            ID NO OF RESPONDENT

SECTION A
 QUESTION 1           TYPE OF GARMENT PURCHASED
4     TYPE            TYPE OF GARMENT PURCHASED
      1 COAT
      2 JACKET
      3 PARKA
 QUESTION 1A     PRICE OF COAT/JACKET
5-7     PRICE         PRICE OF GARMENT

QUESTION 2       DESCRIPTION OF GARMENT
8       FABRIC         FABRIC OF GARMENT
        1 WOOL
        2 POLYESTER
        3 SUEDE/LEATHER
        4 NYLON
        5 COTTON
        6 OTHER

9      CLOSURE       CLOSURE USED IN GARMENT
       1 BUTTON
       2 ZIPPER
       3 COMBINATION

10     INSULATE      TYPE OF INSULATING MATERIAL
       1 POLYESTER-FILLED
       2 DOWN-FILLED
       3 CLOTH
       4 THINSULATE
       5 WOOL
       6 OTHER
       7 NONE

11     SPFEATUR      SPECIAL FEATURES ON GARMENT
       1 HOOD
       2 STORM CUFFS
       3 REMOVEABLE LINING
       4 ADJUSTABLE FIT
       5 CHAMOIS BACK
       6 OTHER
       7 MORE THAN ONE SPECIAL FEATURE

QUESTION 3      MONTH WHEN GARMENT PURCHASED
12     DATEPUR       MONTH WHEN GARMENT PURCHASED
       1 JULY
       2 AUGUST
       3 SEPTEMBER
       4 OCTOBER
       5 NOVEMBER
       6 DECEMBER
       7 JANUARY
```

8 FEBRUARY
9 MARCH
0 APRIL

QUESTION 4 HOW OFTEN GARMENT IS WORN
13 OFTNWORN HOW OFTEN GARMENT IS WORN
1 SELDOM
2 OCCASIONALLY
3 OFTEN
4 ALMOST ALWAYS

QUESTION 5 TYPE OF OCCASIONS GARMENT IS WORN

14	OCCASIO1	TO WORK/SCHOOL	1 YES 2 NO
15	OCCASIO2	SHOPPING	1 YES 2 NO
16	OCCASIO3	EVENING ENTERTAINMENT	1 YES 2 NO
17	OCCASIO4	WHILE AT WORK	1 YES 2 NO
18	OCCASIO5	OTHER	1 YES 2 NO

QUESTION 6 IMPORTANCE OF FEATURES
THE FOLLOWING SCALE APPLES TO THE NEXT 15 VARIABLES
1 NOT AT ALL IMPORTANT
2
3
4
5 EXTREMELY IMPORTANT
19 BRANDNA6
20 FABRIC6
21 EASECAR6
22 WARMTH6
23 COLOR6
24 LINING6
25 STYLE6
26 PRICE6
27 INSULAT6
28 COMFORT6
29 WINDPRF6
30 QUALTY6
31 FIT6
32 SPFEAT6
33 OTHER6

QUESTION #7 RANK FEATURES
THE FOLLOWING VALUES APPLY TO THE NEXT 4 VARIABLES
01 BRAND NAME
02 FABRIC
03 EASE OF CARE
04 WARMTH
05 COLOR
06 TYPE OF LINING

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07 STYLING
08 LOW PRICE
09 TYPE OF INSULATING MATERIAL
10 COMFORT
11 WINDPROOFING
12 QUALITY
13 FIT
14 SPECIAL FEATURES
15 OTHER

34-35 IMPORT1        MOST IMPORTANT FEATURE
36-37 IMPORT2        SECOND IMPORTANT FEATURE
38-39 IMPORT3        THIRD IMPORTANT FEATURE
40-41 IMPORT4        FOURTH IMPORTANT FEATURE

QUESTION 8    MAIN REASON FOR CHOOSING GARMENT
42-43 MAINREAS       MAIN REASON FOR CHOOSING GARMENT   SEE QUESTION #7

QUESTION 9  OVERALL SAISFACTION OR DISSATISFACTION
44    SAT/DIS        SATISFIED OR DISSATISFIED WITH
     1 VERY DISSATISFIED
     2 SOMEWHAT DISSATISFIED
     3 NEITHER SATISFIED NOT DISSATISFIED
     4 SOMEWHAT SATISFIED
     5 VERY SATISFIED

QUESTION 10   REASON FOR BEING SATISFIED WITH PURCHASE
45-46 SATISFY        REASON FOR BEING SATIFIED          SEE QUESTION #7
QUESTION 11   REASON FOR BEING DISSATISFIED WITH PURCHASE
47-48 DISSAT         REASON FOR BEING DISSATIFIED       SEE QUESTION #7

QUESTION #12  DIFFERENCE IN VARIOUS FEATURES OF COAT/JACKETS
THE FOLLOWING SCALE APPLIES TO THE NEXT 10 VARIABLES
      1 NOT AT ALL DIFFERENT
      2
      3
      4
      5 EXTREMELY DIFFERENT
49  STYLE12
50  PRICE12
51  COLOR12
52  FABRIC12
53  CARE12
54  SPFEAT12
55  WARMTH12
56  INSULA12
57  WINDPR12
58  OTHER12

QUESTION #13  FEATURES USED TO ASSESS WARMTH
THE FOLLOWING VALUES APPLY TO THE NEXT 2 VARIABLES
     01 THICKNESS OF GARMENT
     02 TIGHTNESS OF WEAVE
     03 OUTER FABRIC
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    04 AIR SPACE
    05 LENGTH OF GARMENT
    06 SPECIAL FEATURES
    07 PRESENCE OF LINING
    08 TYPE OF INSULATING MATERIAL
    09 WINDPROOFING
    10 TYPE OF LINING
    11 OTHER
59-60  FEATURE1
61-62  FEATURE2

SECTION B
QUESTION 14  SOURCES OF INFORMATION USED TO INDICATE WARMTH
63    SOURCE 1      NEWSPAPERS,MAGAZINES              1 YES
                                                      2 NO
64    SOURCE 2      CATALOGUES                        1 YES
                                                      2 NO
65    SOURCE 3      FRIENDS                           1 YES
                                                      2 NO
66    SOURCE 4      SALESPERSON                       1 YES
                                                      2 NO
67    SOURCE 5      OWN EXPERIENCE                    1 YES
                                                      2 NO
68    SOURCE 6      CONSUMER REPORTS                  1 YES
                                                      2 NO
69    SOURCE 7      TEXTILE SPECIALIST                1 YES
                                                      2 NO
70    SOURCE 8      HANG TAGS                         1 YES
                                                      2 NO
71    SOURCE 9      OTHER                             1 YES
                                                      2 NO

CARD 2

QUESTION 15  EFFECT OF VARIOUS FEATURES ON WARMTH
THE FOLLOWING SCALE APPLIES TO THE NEXT 9 VARIABLES
     1  NO EFFECT
     2
     3
     4
     5  A GREAT EFFECT
     6  DON'T KNOW
9   THICK15      THICKNESS OF GARMENT
10  WEAVE 15     TIGHTNESS OF WEAVE
11  FABRIC15     OUTER FABRIC
12  SPACE15      AIR SPACE
13  LENGTH15     LENGTH OF GARMENT
14  SPFEAT15     SPECIAL FEATURES
15  LINING15     PRESENCE OF LINING
16  INSULA15     TYPE OF INSULATING MATERIAL
17  OTHER15

QUESTIOIN 16  THE PRICE OF A COAT IS AFFECTED BY
THE FOLLOWING SCALE APPLIES TO THE NEXT 7 VARIABLES
     1  STRONGLY DISAGREE
```

```
     2
     3
     4
     5  STRONGLY AGREE
18  BRAND16       BRAND NAME
19  FABRIC16      FABRIC USED
20  AMTINS16      AMOUNT OF INSULATING MATERIAL
21  STYLE16       STYLING
22  TYPINS16      TYPE OF INSULATING MATERIAL
23  SPFEAT16      SPECIAL FEATURES
24  STORE16       STORE WHERE PURCHASED

QUESTION 17  SHOPPING PROBLEMS
THE FOLLOWING SCALE APPLIES TO THE NEXT 6 VARIABLES
     1  MINOR PROBLEM
     2
     3
     4
     5  MAJOR PROBLEM
25  VALUE         KNOWING WHEN AN ITEM IS GOOD VALUE
26  COMPQUAL      COMPARING QUALITY OF DIFFERENT COATS
27  SALESTAF      CONFUSING OR MISLEADING CLAIMS BY SALES STAFF
28  FINDINFO      FINDING INFORMATION ABOUT DIFFERENT COATS
29  INFOLABL      CONFUSING INFORMATION ON LABELS
30  MANUFACT      CONFUSING ADS BY MANUFACTURERS OF COATS

SECTION D
QUESTION 18   HEARD OF TERM R VALUE
31  HEARDRV       HEARD OF TERM R VALUE                    1 YES
                                                           2 NO

QUESTION 19  SELF-RATING: KNOWLEDGEABLE OF TERM R VALUE
32   KNOWLEDG     HOW KNOWLEDGEABLE OF TERM R VALUE
     1  NOT AT ALL KNOWLEDGEABLE
     2  SLIGHTLY KNOWLEDGEABLE
     3  SOMEWHAT KNOWLEDGEABLE
     4  EXTREMELY KNOWLEDGEABLE

QUESTIONS 20 & 21  UNDERSTANDING OF THE TERM R VALUE
33  UNDERSTN      UNDERSTANDING OF R VALUE                 1 YES
                                                           2 NO

SECTION E
QUESTION 22  SHOULD THERE BE A WARMTH RATING
34  SHOULDBE      SHOULD THERE BE A WARMTH RATING          1 YES
                                                           2 NO

QUESTION 23  WOULD CONSUMERS USE A WARMTH RATING
35  CONSUMER      WOULD CONSUMERS USE A WARMTH RATING      1 YES
                                                           2 NO

36  YOU USE       WOULD YOU USE A WARMTH RATING            1 YES
                                                           2 NO
```

37 FED GOVT SHOULD THE FED GOVT REQUIRE RATING
1 YES
2 NO
3 UNDECIDED

QUESTION 26 IMPORTANCE OF PROVISION OF WARMTH INFORMATION
THE FOLLOWING SCALE APPLIES TO THE NEXT 2 VARIABLES
1 EXTREMELY UNIMPORTANT
2 SOMEWHAT UNIMPORTANT
3 NEITHER IMPORTANT NOR UNIMPORTANT
4 SOMEWHAT IMPORTANT
5 EXTREMELY IMPORTANT

38 CHILDREN IMPORTANCE OF WARMTH INFORMATION ON CHILDREN'S GARMENTS
39 ADULT IMPORTANCE OF WARMTH INFORMATION ON ADULT'S GARMENTS

QUESTION 27 FORM PREFERENCE IN WHICH WARMTH INFORMATION / COMMUNICATED
THE FOLLOWING VALUES APPLY TO THE NEXT 6 VARIABLES
1 NEWSPAPER, MAGAZINE
2 SPECIAL LABEL
3 SALESPERSON
4 PAMPHLETS IN STORE
5 REMOVEABLE PRODUCT TAGS
6 OTHER

40 FORM 1 FIRST PREFERENCE
41 FORM 2 SECOND PREFERENCE
42 FORM 3 THIRD PREFERENCE
43 FORM 4 FOURTH PREFERENCE
44 FORM 5 FIFTH PREFERENCE
45 FORM 6 SIXTH PREFERENCE

SECTION F
QUESTION 28 HOW MANY COATS/JACKETS OWNED?
46 OWN ACTUAL NUMBER OWNED

QUESTION 29 HOW MANY COATS/JACKETS PURCHASED
47 SELF COATS PURCHASED FOR SELF IN PAST 5 YEARS
48 OTHERS COATS PURCHASED FOR OTHERS IN PAST 5 YEARS

SECTION G
THE FOLLOWING SCALE APPLIES TO QUESTIONS 30 AND 32
1 NOT AT ALL FAMILIAR
2
3
4
5 EXTREMELY FAMILIAR

QUESTION 30 FAMILIARIITY WITH THE TEXTILE LABELLING ACT
49 TEXTLABL FAMILIARITY WITH THE TEXTILE LABELLING ACT

THE FOLLOWING SCALE APPLIES TO QUESTION 31 AND 33
1 NEVER
2 SELDOM
3 OCCASIONALLY

4 OFTEN
5 ALWAYS

QUESTION 31 USE OF INFORMATION PROVIDED BY TEXTILE LABELLING ACT
50 USE TEXT EXTENT OF USE OF TEXTILE LABELLING ACT

QUESTION 32 FAMILIARITY WITH THE CANADIAN CARE LABELLING SYSTEM
51 CARELABL FAMILIARITY WITH THE CARE LABELLING SYSTEM

QUESTION 33 USE OF INFORMATION PROVIDED BY THE CARE LABELLING SYSTEM
52 USE CARE EXTENT OF USE OF THE CARE LABELLING SYSTEM

SECTION H DEMOGRAPHIC AND SOCIOECONOMIC INFORMATION
QUESTION 34 AGE
53 AGE AGE
1 UNDER 25
2 25 - 34
3 35 - 44
4 45 - 54
5 55 - 64
6 65 AND OVER

QUESTION 35 SEX
54 SEX SEX
1 MALE
2 FEMALE

QUESTION 36 LEVEL OF EDUCATION COMPLETED
55 EDUCATIO HIGHEST LEVEL OF EDUCATION COMPLETED
1 NO SCHOOL
2 ELEMENTARY
3 HIGH SCHOOL
4 NON-UNIVERSITY (TECHNICAL/NURSING)
5 UNIVERSITY GRADUATE
6 POST-GRADUATE DEGREE

QUESTION 37 OCCUPATION
56-57 OCCUPATN OCCUPATION CLASSIFICATION
01 SELF-EMPLOYED PROFESSIONALS
02 EMPLOYED PROFESSIONALS
03 HIGH LEVEL MANAGEMENT
04 SEMI-PROFESSIONALS
05 TECHNICIANS
06 MIDDLE MANAGEMENT
07 SUPERVISOR
08 FOREMAN
09 SKILLED CLERICAL-SALES-SERVICE
10 SKILLED CRAFTS AND TRADES
11 FARMERS
12 SEMISKILLED CLERICAL-SALES-SERVICE
13 SEMISKILLED CRQFTS AND TRADES
14 UNSKILLED CLERICAL-SALES-SERVICE
15 UNSKILLED LABORERS
16 FARM LABORERS

```
     17  STUDENT
     18  HOMEMAKER

QUESTION 38  EMPLOYMENT STATUS
58  EMPLOYST      EMPLOYMENT STATUS
      1  FULL TIME
      2  PART-TIME
      3  UNEMPLOYMENT
      4  RETIRED
      5  IN SCHOOL
      6  HOMEMAKER
      7  OTHER

QUESTION 39  NUMBER OF PEOPLE LIVING IN HOUSEHOLD
59       PEOPHOUS      NUMBER OF PEOPLE LIVING IN HOUSEHOLD
60       CHILD 1       CHILDREN IN HOUSEHOLD UNDER 6 YEARS OF AGE
61       CHILD 2       CHILDREN IN HOUSEHOLD FROM 7 - 12 YEARS OF AGE
62       CHILD 3       CHILDREN IN HOUSEHOLD FROM 13 - 19 YEARS OF AGE

QUESTION 40  TOTAL INCOME
63-64    INCOME        TOTAL INCOME
      01  UNDER $10,000
      02  10,000 - 14,999
      03  15,000 - 19,999
      04  20,000 - 24,999
      05  25,000 - 29,999
      06  30,000 - 34,999
      07  35,000 - 39,999
      08  40,000 - 49,999
      09  50,000 - 59,999
      10  60,000 - 69,999
      11  70,000

QUESTION 3   YEAR WHEN GARMENT WAS PURCHASED
65      YRPURCH        NUMBER OF YEARS AGO COAT PURCHASED
      1  THIS YEAR
      2  2 YEARS AGO
      3  3 YEARS AGO
      4  4 YEARS AGO
      5  5 YEARS AGO
```

SAS

ID	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	1	2	1.587	3.175
3	1	3	1.587	4.762
4	1	4	1.587	6.349
5	1	5	1.587	7.937
6	1	6	1.587	9.524
7	1	7	1.587	11.111
8	1	8	1.587	12.698
9	1	9	1.587	14.286
10	1	10	1.587	15.873
11	1	11	1.587	17.460
12	1	12	1.587	19.048
13	1	13	1.587	20.635
14	1	14	1.587	22.222
15	1	15	1.587	23.810
16	1	16	1.587	25.397
17	1	17	1.587	26.984
18	1	18	1.587	28.571
19	1	19	1.587	30.159
20	1	20	1.587	31.746
21	1	21	1.587	33.333
22	1	22	1.587	34.921
23	1	23	1.587	36.508
24	1	24	1.587	38.095
25	1	25	1.587	39.683
26	1	26	1.587	41.270
27	1	27	1.587	42.857
28	1	28	1.587	44.444
29	1	29	1.587	46.032
30	1	30	1.587	47.619
31	1	31	1.587	49.206
32	1	32	1.587	50.794
33	1	33	1.587	52.381
34	1	34	1.587	53.968
35	1	35	1.587	55.556
36	1	36	1.587	57.143
37	1	37	1.587	58.730
38	1	38	1.587	60.317
39	1	39	1.587	61.905
40	1	40	1.587	63.492
41	1	41	1.587	65.079
42	1	42	1.587	66.667
43	1	43	1.587	68.254
44	1	44	1.587	69.841
45	1	45	1.587	71.429
46	1	46	1.587	73.016
47	1	47	1.587	74.603
48	1	48	1.587	76.190
49	1	49	1.587	77.778
50	1	50	1.587	79.365
51	1	51	1.587	80.952
52	1	52	1.587	82.540
53	1	53	1.587	84.127
54	1	54	1.587	85.714
55	1	55	1.587	87.302
56	1	56	1.587	88.889

ID	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
57	1	57	1.587	90.476
58	1	58	1.587	92.063
59	1	59	1.587	93.651
60	1	60	1.587	95.238
61	1	61	1.587	96.825
62	1	62	1.587	98.413
63	1	63	1.587	100.000

TYPE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	44	44	69.841	69.841
2	18	62	28.571	98.413
3	1	63	1.587	100.000

PRICE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
30	3	3	4.762	4.762
40	2	5	3.175	7.937
50	1	6	1.587	9.524
58	1	7	1.587	11.111
60	4	11	6.349	17.460
75	2	13	3.175	20.635
80	1	14	1.587	22.222
85	1	15	1.587	23.810
90	1	16	1.587	25.397
95	1	17	1.587	26.984
99	1	18	1.587	28.571
100	5	23	7.937	36.508
110	2	25	3.175	39.683
125	1	26	1.587	41.270
129	1	27	1.587	42.857
130	1	28	1.587	44.444
135	1	29	1.587	46.032
145	1	30	1.587	47.619
149	1	31	1.587	49.206
150	4	35	6.349	55.556
160	1	36	1.587	57.143
165	1	37	1.587	58.730
169	1	38	1.587	60.317
189	1	39	1.587	61.905
200	6	45	9.524	71.429
225	1	46	1.587	73.016
250	3	49	4.762	77.778
275	1	50	1.587	79.365
290	1	51	1.587	80.952
299	1	52	1.587	82.540
300	4	56	6.349	88.889
325	3	59	4.762	93.651
340	1	60	1.587	95.238
400	1	61	1.587	96.825
450	1	62	1.587	98.413
495	1	63	1.587	100.000

FABRIC	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	11	.	.	.
1	31	31	59.615	59.615
2	6	37	11.538	71.154
3	3	40	5.769	76.923
4	3	43	5.769	82.692
5	5	48	9.615	92.308
6	4	52	7.692	100.000

CLOSURE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	34	34	55.738	55.738
2	8	42	13.115	68.852
3	19	61	31.148	100.000

INSULATE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	11	.	.	.
1	11	11	21.154	21.154
2	9	20	17.308	38.462
3	23	43	44.231	82.692
4	2	45	3.846	86.538
5	1	46	1.923	88.462
6	3	49	5.769	94.231
7	3	52	5.769	100.000

SPFEATUR	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	34	.	.	.
1	8	8	27.586	27.586
2	5	13	17.241	44.828
4	1	14	3.448	48.276
5	2	16	6.897	55.172
6	2	18	6.897	62.069
7	11	29	37.931	100.000

DATEPUR	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	9	9	14.286	14.286
2	3	12	4.762	19.048
3	6	18	9.524	28.571
4	7	25	11.111	39.683
5	7	32	11.111	50.794
6	14	46	22.222	73.016
7	12	58	19.048	92.063
8	3	61	4.762	96.825
9	2	63	3.175	100.000

OFTNWORN	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	9	10	14.286	15.873
3	27	37	42.857	58.730
4	26	63	41.270	100.000

OCCASIO1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	56	56	90.323	90.323
2	6	62	9.677	100.000

OCCASIO2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	40	40	64.516	64.516
2	22	62	35.484	100.000

OCCASIO3	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	36	36	58.065	58.065
2	26	62	41.935	100.000

OCCASIO4	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	3	3	4.839	4.839
2	59	62	95.161	100.000

OCCASIO5	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	52	.	.	.
1	10	10	90.909	90.909
2	1	11	9.091	100.000

BRANDNA6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	31	31	50.000	50.000
2	10	41	16.129	66.129
3	11	52	17.742	83.871
4	6	58	9.677	93.548
5	4	62	6.452	100.000

FABRIC6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	1	2	1.587	3.175
3	10	12	15.873	19.048
4	19	31	30.159	49.206
5	32	63	50.794	100.000

EASECAR6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	1	1	1.613	1.613
2	5	6	8.065	9.677
3	14	20	22.581	32.258
4	24	44	38.710	70.968
5	18	62	29.032	100.000

WARMTH6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
3	2	2	3.175	3.175
4	17	19	26.984	30.159
5	44	63	69.841	100.000

COLOR6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
2	2	2	3.226	3.226
3	11	13	17.742	20.968
4	18	31	29.032	50.000
5	31	62	50.000	100.000

LINING6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	2	2	3.226	3.226
2	9	11	14.516	17.742
3	16	27	25.806	43.548
4	22	49	35.484	79.032
5	13	62	20.968	100.000

STYLE6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	1	1	1.587	1.587
3	6	7	9.524	11.111
4	19	26	30.159	41.270
5	37	63	58.730	100.000

PRICE6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	8	8	13.115	13.115
2	15	23	24.590	37.705
3	19	42	31.148	68.852
4	8	50	13.115	81.967
5	11	61	18.033	100.000

INSULAT6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
2	6	6	10.000	10.000
3	16	22	26.667	36.667
4	14	36	23.333	60.000
5	24	60	40.000	100.000

COMFORT6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	1	1	1.587	1.587
3	1	2	1.587	3.175
4	22	24	34.921	38.095
5	39	63	61.905	100.000

WINDPRF6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	5	5	7.937	7.937
3	13	18	20.635	28.571
4	17	35	26.984	55.556
5	28	63	44.444	100.000

QUALITY6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
3	3	3	4.839	4.839
4	20	23	32.258	37.097
5	39	62	62.903	100.000

FIT6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	1	1	1.639	1.639
2	1	2	1.639	3.279
3	2	4	3.279	6.557
4	11	15	18.033	24.590
5	46	61	75.410	100.000

SPFEAT6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	5	.	.	.
1	8	8	13.793	13.793
2	9	17	15.517	29.310
3	14	31	24.138	53.448
4	13	44	22.414	75.862
5	14	58	24.138	100.000

OTHER6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	54	.	.	.
3	1	1	11.111	11.111
4	2	3	22.222	33.333
5	6	9	66.667	100.000

SAS

IMPORT1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	5	6	7.937	9.524
4	26	32	41.270	50.794
5	1	33	1.587	52.381
7	13	46	20.635	73.016
8	3	49	4.762	77.778
9	3	52	4.762	82.540
10	1	53	1.587	84.127
12	4	57	6.349	90.476
13	5	62	7.937	98.413
15	1	63	1.587	100.000

IMPORT2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	6	6	9.524	9.524
3	1	7	1.587	11.111
4	6	13	9.524	20.635
5	4	17	6.349	26.984
7	10	27	15.873	42.857
8	3	30	4.762	47.619
9	1	31	1.587	49.206
10	9	40	14.286	63.492
11	8	48	12.698	76.190
12	7	55	11.111	87.302
13	5	60	7.937	95.238
14	1	61	1.587	96.825
15	2	63	3.175	100.000

IMPORT3	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	3	3	4.762	4.762
3	2	5	3.175	7.937
4	8	13	12.698	20.635
5	8	21	12.698	33.333
7	12	33	19.048	52.381
8	3	36	4.762	57.143
9	1	37	1.587	58.730
10	10	47	15.873	74.603
11	3	50	4.762	79.365
12	6	56	9.524	88.889
13	5	61	7.937	96.825
14	2	63	3.175	100.000

IMPORT4	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	3	4	4.762	6.349
3	3	7	4.762	11.111
4	6	13	9.524	20.635
5	7	20	11.111	31.746
6	1	21	1.587	33.333
7	5	26	7.937	41.270
8	3	29	4.762	46.032
9	1	30	1.587	47.619
10	6	36	9.524	57.143
11	1	37	1.587	58.730
12	7	44	11.111	69.841
13	15	59	23.810	93.651
14	4	63	6.349	100.000

MAINREAS	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	2	2	3.226	3.226
2	2	4	3.226	6.452
4	9	13	14.516	20.968
5	4	17	6.452	27.419
7	18	35	29.032	56.452
8	6	41	9.677	66.129
9	1	42	1.613	67.742
10	3	45	4.839	72.581
12	3	48	4.839	77.419
13	1	49	1.613	79.032
15	13	62	20.968	100.000

SATDIS	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	5	6	7.937	9.524
3	1	7	1.587	11.111
4	9	16	14.286	25.397
5	47	63	74.603	100.000

SATISFY	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
4	19	19	31.148	31.148
5	3	22	4.918	36.066
7	7	29	11.475	47.541
8	1	30	1.639	49.180
10	7	37	11.475	60.656
12	8	45	13.115	73.770
13	3	48	4.918	78.689
15	13	61	21.311	100.000

DISSAT	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	42	.	.	.
2	1	1	4.762	4.762
3	1	2	4.762	9.524
5	2	4	9.524	19.048
6	1	5	4.762	23.810
10	2	7	9.524	33.333
11	2	9	9.524	42.857
12	2	11	9.524	52.381
13	1	12	4.762	57.143
14	3	15	14.286	71.429
15	6	21	28.571	100.000

STYLE12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	3	3	4.918	4.918
2	5	8	8.197	13.115
3	23	31	37.705	50.820
4	19	50	31.148	81.967
5	11	61	18.033	100.000

PRICE12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	1	1	1.639	1.639
2	7	8	11.475	13.115
3	22	30	36.066	49.180
4	17	47	27.869	77.049
5	14	61	22.951	100.000

COLOR12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	2	2	3.226	3.226
2	12	14	19.355	22.581
3	27	41	43.548	66.129
4	14	55	22.581	88.710
5	7	62	11.290	100.000

FABRIC12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	7	7	11.290	11.290
2	11	18	17.742	29.032
3	20	38	32.258	61.290
4	14	52	22.581	83.871
5	10	62	16.129	100.000

CARE12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	9	9	14.754	14.754
2	13	22	21.311	36.066
3	28	50	45.902	81.967
4	8	58	13.115	95.082
5	3	61	4.918	100.000

SPFEAT12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	4	.	.	.
1	4	4	6.780	6.780
2	10	14	16.949	23.729
3	17	31	28.814	52.542
4	16	47	27.119	79.661
5	12	59	20.339	100.000

WARMTH12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	5	5	8.065	8.065
2	6	11	9.677	17.742
3	18	29	29.032	46.774
4	19	48	30.645	77.419
5	14	62	22.581	100.000

INSULA12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	8	8	12.903	12.903
2	9	17	14.516	27.419
3	22	39	35.484	62.903
4	15	54	24.194	87.097
5	8	62	12.903	100.000

WINPRF12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	4	4	6.667	6.667
2	13	17	21.667	28.333
3	19	36	31.667	60.000
4	13	49	21.667	81.667
5	11	60	18.333	100.000

OTHER12	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	60	.	.	.
1	1	1	33.333	33.333
4	1	2	33.333	66.667
5	1	3	33.333	100.000

FEATURE1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	8	.	.	.
1	3	3	5.455	5.455
2	2	5	3.636	9.091
3	11	16	20.000	29.091
5	3	19	5.455	34.545
6	4	23	7.273	41.818
7	1	24	1.818	43.636
8	14	38	25.455	69.091
9	3	41	5.455	74.545
10	3	44	5.455	80.000
11	11	55	20.000	100.000

FEATURE2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	34	.	.	.
1	2	2	6.897	6.897
3	5	7	17.241	24.138
5	1	8	3.448	27.586
6	4	12	13.793	41.379
7	2	14	6.897	48.276
8	7	21	24.138	72.414
9	2	23	6.897	79.310
10	2	25	6.897	86.207
11	4	29	13.793	100.000

SOURCE1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	9	9	14.286	14.286
2	54	63	85.714	100.000

SOURCE2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	3	3	4.762	4.762
2	60	63	95.238	100.000

SOURCE3	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	36	36	57.143	57.143
2	27	63	42.857	100.000

SOURCE4	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	29	29	46.032	46.032
2	34	63	53.968	100.000

SOURCE5	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	56	56	88.889	88.889
2	7	63	11.111	100.000

SOURCE6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	20	20	31.746	31.746
2	43	63	68.254	100.000

SOURCE7	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
2	62	63	98.413	100.000

SOURCE8	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	39	39	61.905	61.905
2	24	63	38.095	100.000

SOURCE9	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	3	3	4.762	4.762
2	60	63	95.238	100.000

THICK15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	3	3	4.918	4.918
2	12	15	19.672	24.590
3	17	32	27.869	52.459
4	11	43	18.033	70.492
5	9	52	14.754	85.246
6	9	61	14.754	100.000

WEAVE15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
2	1	1	1.613	1.613
3	14	15	22.581	24.194
4	20	35	32.258	56.452
5	18	53	29.032	85.484
6	9	62	14.516	100.000

FABRIC15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
2	1	1	1.613	1.613
3	7	8	11.290	12.903
4	23	31	37.097	50.000
5	27	58	43.548	93.548
6	4	62	6.452	100.000

SPACE15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	4	.	.	.
1	1	1	1.695	1.695
2	1	2	1.695	3.390
3	10	12	16.949	20.339
4	16	28	27.119	47.458
5	16	44	27.119	74.576
6	15	59	25.424	100.000

LENGTH15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	5	.	.	.
1	4	4	6.897	6.897
2	2	6	3.448	10.345
3	9	15	15.517	25.862
4	25	40	43.103	68.966
5	16	56	27.586	96.552
6	2	58	3.448	100.000

SPFEAT15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	1	1	1.667	1.667
2	6	7	10.000	11.667
3	11	18	18.333	30.000
4	20	38	33.333	63.333
5	19	57	31.667	95.000
6	3	60	5.000	100.000

LINING15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	1	1	1.667	1.667
2	5	6	8.333	10.000
3	8	14	13.333	23.333
4	20	34	33.333	56.667
5	24	58	40.000	96.667
6	2	60	3.333	100.000

INSULA15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	6	.	.	.
1	1	1	1.754	1.754
2	1	2	1.754	3.509
3	3	5	5.263	8.772
4	10	15	17.544	26.316
5	42	57	73.684	100.000

OTHER15	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	59	.	.	.
3	2	2	50.000	50.000
5	2	4	50.000	100.000

BRAND16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	5	5	7.937	7.937
3	4	9	6.349	14.286
4	18	27	28.571	42.857
5	36	63	57.143	100.000

FABRIC16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	1	1	1.587	1.587
3	6	7	9.524	11.111
4	27	34	42.857	53.968
5	29	63	46.032	100.000

AMTINS16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	3	3	4.762	4.762
2	9	12	14.286	19.048
3	23	35	36.508	55.556
4	17	52	26.984	82.540
5	11	63	17.460	100.000

STYLE16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	6	6	9.677	9.677
2	3	9	4.839	14.516
3	17	26	27.419	41.935
4	18	44	29.032	70.968
5	18	62	29.032	100.000

TYPINS16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	2	2	3.226	3.226
3	17	19	27.419	30.645
4	22	41	35.484	66.129
5	21	62	33.871	100.000

SPFEAT16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	2	2	3.279	3.279
2	14	16	22.951	26.230
3	16	32	26.230	52.459
4	17	49	27.869	80.328
5	12	61	19.672	100.000

STORE16	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	5	5	8.065	8.065
2	3	8	4.839	12.903
3	16	24	25.806	38.710
4	10	34	16.129	54.839
5	28	62	45.161	100.000

VALUE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	28	28	44.444	44.444
2	10	38	15.873	60.317
3	18	56	28.571	88.889
4	4	60	6.349	95.238
5	3	63	4.762	100.000

COMPQUAL	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	17	17	26.984	26.984
2	20	37	31.746	58.730
3	15	52	23.810	82.540
4	8	60	12.698	95.238
5	3	63	4.762	100.000

SALESTAF	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	41	41	66.129	66.129
2	8	49	12.903	79.032
3	6	55	9.677	88.710
4	4	59	6.452	95.161
5	3	62	4.839	100.000

FINDINFO	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	28	28	45.902	45.902
2	6	34	9.836	55.738
3	10	44	16.393	72.131
4	8	52	13.115	85.246
5	9	61	14.754	100.000

INFOLABL	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	32	32	50.794	50.794
2	12	44	19.048	69.841
3	10	54	15.873	85.714
4	6	60	9.524	95.238
5	3	63	4.762	100.000

MANUFACT	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	2	.	.	.
1	31	31	50.820	50.820
2	15	46	24.590	75.410
3	5	51	8.197	83.607
4	6	57	9.836	93.443
5	4	61	6.557	100.000

HEARDRV	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	25	25	39.683	39.683
2	38	63	60.317	100.000

KNOWLEDG	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	38	38	63.333	63.333
2	12	50	20.000	83.333
3	8	58	13.333	96.667
4	1	59	1.667	98.333
5	1	60	1.667	100.000

UNDERSTN	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	22	22	36.667	36.667
2	38	60	63.333	100.000

SHOULDBE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	56	56	88.889	88.889
2	7	63	11.111	100.000

CONSUMER	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	54	54	87.097	87.097
2	8	62	12.903	100.000

YOUUSE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	1	.	.	.
1	55	55	88.710	88.710
2	7	62	11.290	100.000

FEDGOVT	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	36	36	57.143	57.143
2	15	51	23.810	80.952
3	12	63	19.048	100.000

CHILDREN	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	13	13	20.635	20.635
2	3	16	4.762	25.397
3	4	20	6.349	31.746
4	8	28	12.698	44.444
5	35	63	55.556	100.000

ADULT	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	9	9	14.286	14.286
2	8	17	12.698	26.984
3	7	24	11.111	38.095
4	18	42	28.571	66.667
5	21	63	33.333	100.000

FORM1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	2	2	3.333	3.333
2	46	48	76.667	80.000
3	2	50	3.333	83.333
4	2	52	3.333	86.667
5	7	59	11.667	98.333
6	1	60	1.667	100.000

FORM2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	23	.	.	.
1	3	3	7.500	7.500
2	4	7	10.000	17.500
3	7	14	17.500	35.000
4	7	21	17.500	52.500
5	19	40	47.500	100.000

FORM3	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	27	.	.	.
1	8	8	22.222	22.222
2	3	11	8.333	30.556
3	3	14	8.333	38.889
4	17	31	47.222	86.111
5	5	36	13.889	100.000

FORM4	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	31	.	.	.
1	10	10	31.250	31.250
2	1	11	3.125	34.375
3	10	21	31.250	65.625
4	8	29	25.000	90.625
5	3	32	9.375	100.000

FORM5	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	34	.	.	.
1	11	11	37.931	37.931
2	2	13	6.897	44.828
3	10	23	34.483	79.310
4	1	24	3.448	82.759
5	5	29	17.241	100.000

FORM6	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	63	.	.	.

OWN	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	4	4	6.349	6.349
3	7	11	11.111	17.460
4	12	23	19.048	36.508
5	11	34	17.460	53.968
6	10	44	15.873	69.841
7	8	52	12.698	82.540
8	4	56	6.349	88.889
9	7	63	11.111	100.000

SELF	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	5	5	7.937	7.937
2	9	14	14.286	22.222
3	17	31	26.984	49.206
4	14	45	22.222	71.429
5	5	50	7.937	79.365
6	5	55	7.937	87.302
7	3	58	4.762	92.063
8	2	60	3.175	95.238
9	3	63	4.762	100.000

OTHERS	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	19	.	.	.
0	7	7	15.909	15.909
1	8	15	18.182	34.091
2	5	20	11.364	45.455
3	4	24	9.091	54.545
4	1	25	2.273	56.818
5	6	31	13.636	70.455
6	3	34	6.818	77.273
7	2	36	4.545	81.818
9	8	44	18.182	100.000

TEXTLABL	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	18	18	28.571	28.571
2	12	30	19.048	47.619
3	11	41	17.460	65.079
4	16	57	25.397	90.476
5	6	63	9.524	100.000

USETEXT	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	13	13	21.667	21.667
2	3	16	5.000	26.667
3	9	25	15.000	41.667
4	16	41	26.667	68.333
5	19	60	31.667	100.000

CARELABL	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	15	15	23.810	23.810
2	3	18	4.762	28.571
3	7	25	11.111	39.683
4	18	43	28.571	68.254
5	20	63	31.746	100.000

USECARE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	12	12	20.000	20.000
2	5	17	8.333	28.333
3	7	24	11.667	40.000
4	17	41	28.333	68.333
5	19	60	31.667	100.000

AGE	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	9	9	14.286	14.286
2	17	26	26.984	41.270
3	20	46	31.746	73.016
4	10	56	15.873	88.889
5	6	62	9.524	98.413
6	1	63	1.587	100.000

SEX	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	15	15	23.810	23.810
2	48	63	76.190	100.000

EDUCATIO	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
3	23	23	36.508	36.508
4	8	31	12.698	49.206
5	22	53	34.921	84.127
6	10	63	15.873	100.000

OCCUPATN	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
2	13	13	20.635	20.635
3	4	17	6.349	26.984
4	5	22	7.937	34.921
6	9	31	14.286	49.206
7	2	33	3.175	52.381
9	8	41	12.698	65.079
10	1	42	1.587	66.667
12	11	53	17.460	84.127
13	1	54	1.587	85.714
17	5	59	7.937	93.651
18	4	63	6.349	100.000

EMPLOYST	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	45	45	71.429	71.429
2	10	55	15.873	87.302
5	3	58	4.762	92.063
6	4	62	6.349	98.413
7	1	63	1.587	100.000

PEOPHOUS	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	8	.	.	.
1	7	7	12.727	12.727
2	17	24	30.909	43.636
3	11	35	20.000	63.636
4	9	44	16.364	80.000
5	10	54	18.182	98.182
6	1	55	1.818	100.000

CHILD1	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	30	.	.	.
0	21	21	63.636	63.636
1	8	29	24.242	87.879
2	3	32	9.091	96.970
3	1	33	3.030	100.000

CHILD2	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	32	.	.	.
0	19	19	61.290	61.290
1	9	28	29.032	90.323
2	3	31	9.677	100.000

CHILD3	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	29	.	.	.
0	15	15	44.118	44.118
1	12	27	35.294	79.412
2	4	31	11.765	91.176
3	2	33	5.882	97.059
4	1	34	2.941	100.000

SAS

INCOME	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
.	3	.	.	.
1	1	1	1.667	1.667
2	1	2	1.667	3.333
3	2	4	3.333	6.667
4	4	8	6.667	13.333
5	6	14	10.000	23.333
6	6	20	10.000	33.333
7	3	23	5.000	38.333
8	15	38	25.000	63.333
9	5	43	8.333	71.667
10	7	50	11.667	83.333
11	10	60	16.667	100.000

YRPURCH	FREQUENCY	CUM FREQ	PERCENT	CUM PERCENT
1	63	63	100.000	100.000