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PERCEPTION OF RISK AND RISK REDUCTION METHODS IN WOMEN'S FOOD SHOPPING BEHAVIOUR

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PERCEPTION OF RISK AND RISK REDUCTION METHODS IN WOMEN'S FOOD SHOPPING BEHAVIOUR

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PERCEPTION OF RISK AND RISK REDUCTION METHODS IN WOMEN'S FOOD SHOPPING BEHAVIOUR

In this thesis, perception of risk and risk reduction methods women face in food shopping will be studied. Perceived risk is analyzed in four kinds of risk like time, hazard, money and ego loss and their relation between demographic and psychographic variables are analysed. Moreover, the relationship between these variables and risk reduction methods are also the subject of the study.

The study includes the literature review and the field study which is conducted through a questionnaire. The interpretation of the computer analysed data is done and the implications for marketers and acedemicians are presented.

KADINLARIN YİYECEK ALIŞVERİŞİNDE ALGILADIKLARI RİSKLER VE RİSK AZALTICI METODLAR

Bu tezde, kadınların yiyecek alışverişinde karşılaştıkları riskler ve kullandıkları riski azaltıcı metodlar incelenmektedir. Algılanan risk, zaman, sağlık, para ve kişisel kayıplar gibi dört sınıfta analiz edilmektedir ve bazı değişkenlerle olan lişikisi araştırılmaktadır. Aynı değişkenlerle, riski azaltıcı metodlar arasındaki ilişkiler de çalışma kapsamı içindedir.

Çalışma, bu konuda yazılmış olan makaleleri ve anket aracılığıyla yapılmış olan bir saha çalışmasını kapsayacaktır. Kompüter aracılığıyla analiz edilmiş veriler yorumlanacak ve akedemisyenler ile pazarlamacılara olan katkıları sunulacaktır.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

I. INTRODUCTION

The master's thesis is on perception of risk and risk reduction methods that are involved in women's food shopping. The topic of risk perception is a classical theme in Buyer Behaviour and there have been many studies conducted related to this topic since it's first introduction by Bauer.

On the other hand, marketers main target in shopping behaviour has been females as they are related to food shopping which includes a maternal role. And as women are being employed by increasing rates in the society, marketers try to asses their new roles. Many surveys have been conducted on this issue outside Turkey.

When Bauer first introduced the subject of risk perception in Consumer Behaviour Science, he introduced it as follows:

"In every buying decision, a consumer attempts to identify buying goals and to match these goals with product on brand offerings. Risk may often be perceived by the consumer as a result of one or more factors.

The consumer may be uncertain about her buying goals, the consumer may be uncertain as to which purchase (brand, product, model etc.) will best match or satisfy acceptance levels of buying goals, the consumer may perceive possible adverse consequences if the purchase is made and the result is a failure."

In Turkey where not many studies are conducted on both of these above subjects, the consumers mainly face two kinds of the risks mentioned by Bauer. The first is that, they do not know which purchase will best match or satisfy the levels of buying goals. The second is that the adverse consequences that the purchase will create. In Turkey, both of these situations can be faced. The public has began to acquire strength in consumer protection recently, especially in food shopping, but we cannot say that females have a real involment with the subject like a European country or USA.

Cunnigham, in his study operationalized risk as to have two components; uncertainty and consequences. Uncertainty meant the subjective perception as perceived by the consumer. Consequences are related to functional or performance or psychological goals.

This study is designed to analyse the situation in Turkey, where the subject of risk perception has started to acquire importance. There are lots of risks involved in food shopping in Turkey where a powerful official control is almost absent and so many deceit have been taking place. Therefore it's of crucial importance for the marketers to know the remedies to these risks. Then they will apply the right strategies for price, product, place and promotional decisions.

This study will be one of the first few, which attempt to combine perception of risk and female food shopping behaviour in Turkey. In the first part of the study a literature survey will take place and in the second part, a field study which is conducted via a questionnaire. The field study aims to find support for the hypotheses like, if working women perceive higher risks, if the working women perceive higher money loss, if the women with children exercise more hazard loss, if non-self confident women exercise more ego-loss, if women prefer consumer protective ways of risk reduction methods most, if risk reduction methods discriminate low risk perceivers from high risk perceivers and if demographic variables discriminate high risk perceivers from low risk perceivers.

For this reason the data will be analysed through computer programs like frequency distributions, cross tabulations and discriminant analysis. The interpretations will be done in such a way to provide recommendations for future studies and marketers.

The organization of the chapters is as follows:

-Chapter II, will introduce the previous studies on perceptual risk and female food shopping behaviour,

-Chapter III, will present research design and findings,

-In chapter IV, implications and interpretations will be discussed.

CHAPTER TWO

II. THEORETICAL BACKGROUND OF THE STUDY: A Review of Conceptual and Emprical Studies.

In this chapter, previous studies will be introduced under two main topics: Perceptual risk and female food shopping behaviour. A chronological order will be kept in the introduction of these articles.

Under the first topic, 22 articles conceptualizing, measuring or theorizing perceived risk will be reviewed. A subclassification of the studies which started with Bauer and reached to 1983 have been made as follows:

1. Studies which are aiming at conceptualizing and modeling risk perception;

2. Studies on risk reduction methods; and finally,

3. Studies on personal influences on risk perception.

Under the second topic, studies on female food shopping behaviour will be reviewed.

2.1 Studies Related to Perceptual Risk:

2.1.1 Studies on Conceptualizing and Theorizing Risk:

In this section, 14 articles related to the above topic are reviewed.

Bauer, in his classical article titled, " Consumer Behaviour as Risk Taking, " (1) introduced the risk concept to the marketing science by defining the issue as a new fad in marketing research. He defined risk as the action of the consumer that will produce consequences which he cannot anticipate with anything approximating to certainty and some of which are likely to be unpleasant. There were lots of alternative uses related to the consumers financial resources and he said as the ticket of the purchase largened, perception of risk increased. Moreover he pointed out the relationship between brand-loyalty and the degree of risk, personal influence and group influence as methods to decrease perceived risk. Bauer also explained the fact that perceived risk was a subjective phenomenon. Therefore, it was expected that different people would use different methods to get rid of it. Information seeking behaviour also appeared to be one of the most possible ways of reducing risk.

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(1) Bauer, R., "Consumer Behaviour as Risk Taking," in Classics in Consumer Behaviour, Boone, L.E. (Oklahoma: Petroleum Publishing Co., 1976), pp. 88-97.

Bauer's wish of having many studies to follow his, has come true, because as we see, there are many studies made in this field of research.

Cunnigham (1967) in his piece of work titled, "The Major Dimensions of Perceived Risk, " (2) defined perceived risk in two components: Uncertainty and Consequences. The two questions utilized as a measure of perceived risk were:

(a) Would you say that you're very certain, usually certain, sometimes certain, almost never certain that a brand of product you haven't tried will work as well as your present brand?

Following this question which was related to uncertainty variable, the second one which was related to cansequences variable was:

(b) Compared to your existing product, would you say that there's a great deal of danger, some danger, not much danger, no danger in trying a brand you'e never used before?

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(2) Cunnigham, S., " The Major Dimensions of Perceived Risk", in Risk Taking and Information Handling in Consumer Behaviour, Cox, D.F. (Boston: Harvard University, 1967) pp. 9-19.

This study was a telephone survey made on 1200 housewives on frequently purchased items and it was found that risk differed for different product classes. Amoung product categories like headache remedy, fabric softener, dry spaghetti, the first made the higher frequency in high risk.

Moreover in the study the author tried to generalize the issues for risky behaviour. Some demographics, self-confidence variable, informal social contacts, sources of new product information, length of product use, trial of new products and rate of usage clearly influenced risky behaviour.

All of the findings suggested that perceived risk was a product-specific phenomenon and the content and composition of perceived risk could be understood in terms of specific product category. Moreover, the perception of risk was found to be unique to each individual.

Cunnigham's measure of risk was employed in the field study which was carried in the context of this master's thesis.

Cox and Rich (1967) studied telephone shopping (3) in terms of risk behaviour in their study, "Perceived Risk and Consumer Decision Making-The Case of Telephone Shopping". Telephone shopping was defined as the easiest and most convenient mode of shopping ever developed. This study was conducted in New-York and Cleveland and women didn't agree in their perceptions of risk in these two cities. The authors tried to explain the reason in this article.

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(3) Cox D.F., Rich S.U. "Perceived Risk and Consumer Decision Making-The Case of Telephone Shopping". In Risk Taking and Information Handling in Consumer Behaviour, Cox D.F. (Boston: Harvard University, 1967) pp. 487-507.

Perceived risk which was created by phone shopping is found to be the element deterring as the customer had a very limited scope of risk reduction strategies. In fact the only one, if existed, was the information provided by a telephone order clerk.

In the study, the element of risk-uncertainty was expressed to result from the product, the brand, place of purchase and mode of purchase and the amount of risk basicly be a function of amount at stake and the feeling of subjective certainty. And the losses inherent were referred as financial loss, time loss, ego loss and non - achievement of buying goals.

In the article, strategies of risk reduction were also touched upon. The two basic ways for reducing risk were either to do something to increase the certainty of the prediction of probable consequences of her decision or to do something to reduce the amount at stake.

Within the context of this study, a survey has been conducted in 52 department and specialty stores. The determinants of telephone shopping and the types of mechandise ordered by telephone were studied.

A list of findings for the above research are as follows:

(a) The role of advertisements as sources of information was significant. Therefore the clerks should be reliable and tell about size, brand, color and identification number.

(b) The factors to reduce risk in telephone shopping were; better informed telephone clerks, ability to talk to selling department when desired, more accurate order filing, and lastly better packaging and delivery.

(c) The best prospects for telephone shopping turned out to be the women in the middle-higher income groups who lived in suburbs and had young children at home. They liked to shop quickly, involved in outdoor activities, and were also good-in-store shoppers.

Cunningham in his study, "Perceived Risk and Brand Loyalty", (4) demonstrated a strong positive relationship between perceived risk and perceived brand committment. The measures were derived from the two following questions:

(a) Do you regularly switch around or buy the same brand of headache remedy (fabric softener, dry spaghetti)?

(b) What would you do if your present brand of headache remedy (fabric softener, dry spaghetti) was out of stock-buy another brand, go to another store, or wait until the nex trip? Those who were high in perceived brand committment were those claiming to buy regularly the same brand and would also go to another shop or wait until the next trip if they were unable to get their present brand.

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(4) Cunnigham, S., "Perceived Risk and Brand Loyalty", in Risk Taking and Information Handling in Consumer Behaviour, Cox D.F. (Boston: Harvard University, 1967) 458-476.

As to the findings of the study, perceived brand committment appeared to be related to the type of risk perceived by the respondents, the more the serious type of risk, the higher the probability of brand loyalty. In addition, perceived risk was, in some respects related to the rationale for switching brands given by those claiming to be brand switchers. For instance, low perceived risk consumers were more likely to cite curiosity as a reason for switching brands of fabric softeners; high risk consumers were more likely to switch in search of a better brand.

It was also found out that relationship between perceived risk and brand loyalty was not a simple one. Although the high-to-medium risk perceivers were slower to adopt a new brand, after several months they were more likely to try it possibly in search for a better brand. After several more months, however they tended to revert to their established brands. When the market was stable (in absence of new brands), they were likely to remain loyal.

All of the above articles, which can be considered as introductory studies, suggested measures of perception of risk. They also showed that risk was a product and individual specific phenomenon.

Spence H., Engel J.M. and Blackwell R., (1970) in their study "Perceived Risk in Mail Order and Retail Store Buying", (5) investigated differences in risk perception between buying from a store and/or salesman. They found for 20 products that they studied, consumers perceived more risk in the mail order situation than in store/salesman situation. The relationships between perceived risk and selected socioeconomic variables were examined.

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(5) Spence H., Engel J.M., Blackwell R., " Perceived Risk and Retail Store Buying," Journal of Marketing Research, Vol. VII pp. 364-369, August 1970

This study had similarity with Cox and Rich study related to telephone shopping. (6) The uncertainty generated by an inability to examine the item and to interact with the seller, in other words, might be sufficiently great to cause many shoppers to avoid buying by mail. This hypothesis and demogrophics were tested in low and high risk bearing situations. The primary product was a supplementary hospitalization insurance plan. A quasi-experimental field study was conducted with in-home interviews.

This study differed from Cox and Rick study, by attempting to measure the level of perceived risk in two buying situations, not the amount of risk the individual sees in a specific buying situation. So the risk scale was changed to serve the objectives of this study, levels of risk for each buying situation were asked and differences between scores in the two buying situations for a particular product were computed. Findings were as follows:

(a) The hypothesis that people perceive more risk in the act of buying by mail was confirmed; and

(b) An inverse relationship between income and education and level of perceived risk was found.

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(6) Cox, D., Rich S., "Perceived Risk and Consumer Decision Making-The Case of Phone Shopping," in Risk Taking and Information Handling in Consumer Behaviour, Cox D.F. (Boston:Harvard University 1967) pp.487-507.

In Shiffman, L.G. (1972) study of, "Perceived Risk in New Product Trial by Elderly Customers," (7) perceived risk and perceived error tolerance were the focus of attention in elderly costomers' decision making process. Error tolerance was operationalized complementary to perceived risk because it was designed to measure general risk handling with respect to new products with a broad category.

The hypotheses tested in the study were:

(a) Trial of a specific new product will vary inversely with the degree of perceived risk; and

(b) Trial of a specific new product will be greater than for those who prefer an inclusion strategy than those who prefer exclusion.

The sample was a community of geriatrics who lived in a 12-flat appartment house. The product was a new salt-substitute. In the study, the emphasis was on risk kinds of taste and health risk.

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(7) Schiffman, L.G., " Perceived Risk in New Product Trial by Elderly Customers," Journal of Marketing Research, Vol.9, pp. 106-108, February 1972.

The findings were as follows:

(a) In the case of perceived risk and trial the author found that there was a strong inverse association between perceived taste risk and trial. In the case of perceived health risk this inverse association was even stronger; and

(b) There was no strong association between perceived risk variables and the perceived error tolerance variable. This indicated that each risk variable measured a different aspect of perceived risk, but tolerance variable was a unique dimension of consumer risk. And the variable of perceived error tolerance measured consistent consumer preference for either as inclusion or exclusion strategy. For marketing management, the perceived error tolerance variable might serve as a means of identifying innovator consumers who maintained a consistent risk strategy of inclusion for products within a given category.

Hisrich R., Dornoff R., Kernan J. (1972), in order to test the relationship of the perceived risk construct with store patronage, conducted personal interviews with 300 households which were randomly selected from telephone directory. The name of the study was "Perceived Risk in Store Selection".(8) The questionnaire employed items which measured perceived risk, general self-confidence, specific self-confidence, information seeking and repeat patronage.

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(8) Hisrich, R., Dornoff, R., Kernan J., "Perceived Risk in store Selection," Journal of Marketing Research Vol.9, pp. 435-439, November 1972.

The data suggested weak to moderate (though statistically significant) relationships between risk and confidence, risk and information seeking. For each product (carpeting, furniture, draperies), consumers' self-esteemed and their self-assesed ability to choose a store in which to buy seemed to bear on how much risk they perceived was studied. Similarly, the amount of this perceived risk suggested the extent to which information seeking occured. It's also suggested by the data that the relationship, between general self-confidence and risk, are consistently weaker than those between specific self-confidence and perceived risk.

This study suggested that for the kinds of acquisitions considered (draperies, furniture and carpeting), it was possible to measure the risk consumers perceived in store selection. If there was any validity to the notion that performance or psychosocial risk of a product was transferable to the retail stores that sold it, then such a transfer would seem most likely for products low in brand identification. In this case, the store became a product of sorts and apparently was susceptible to the same kind of risk handling analysis typically accorded by products. (9)

Bettman's (1973) primary concern in his article titled Perceived Risk and Its Components: A Model and Emprical Test, (10) was to create a theoretical model and measurement system for perceived risk and its components. A distinction was made between handled risk and inherent risk. Inherent risk is the latent risk that the product class is able to arouse. Handled risk is the amount of conflict that the product class is able to arouse when the buyer chooses a brand from the product class.

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(9) Directly taken from the text.

(10) Bettman, J.R., "Perceived Risk and its Components: A Model and Emprical Test," Journal of Marketing Research Vol.X. pp. 184-190, May 1973

The study was done with 123 housewives in the married students complex in UCLA. The product types included were: paper towels, dry spaghetti, furniture polish, toothpaste, beer, instant coffee, aspirin, margarine and fabric softener. The hypotheses tested were;

(a) Inherent risk for a product class would increase with variation in perceived product quality, importance of the brand choice for a product class, the perceived price paid when a brand from the product class was purchased;

(b) Inherent risk for a product class would decrease with, the some of acceptable set of brands in terms of quality, and the mean level of quality for product class,

(c) Handled risk for a product class would increase with inherent risk for the product class and decrease with amount of useful information, confidence with the information and mean familiarity with the product within the product class.

As a result of the study, the hypothesized models were supported reasonably well by the data, except for the perceived price paid variable within the models. For inherent risk models, importance turned out to be a dominant variable.

In the article named "The Role of Risk in Consumer Behaviour," J. Taylor (1974) attempted to construct a comprehensive theory of risk taking in consumer behaviour by specifying the principal concepts involved and the interrelationship between the concepts. (11)

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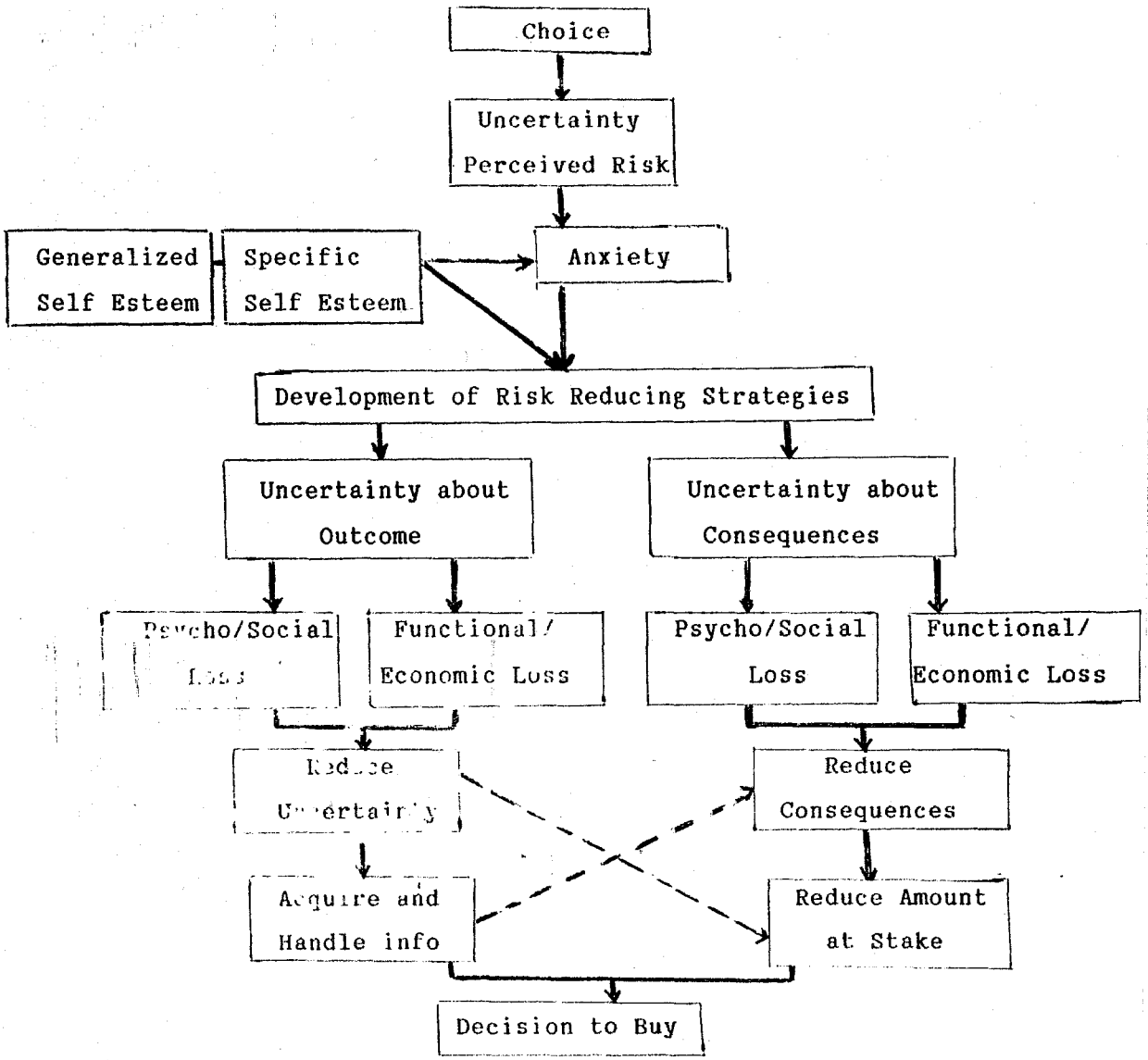
(11) Taylor, J.R., "The Role of Risk in Consumer Behaviour," Journal of Marketing Research Vol.38 pp. 54-60, April 1974

In addition, some of the research relevant to these concepts ... interrelations are presented. This model can be represented by the ... diagram:

FIGURE 2.1 RISK TAKING IN CONSUMER BEHAVIOUR



Source: Article

Choice is a personality variable which arises when the ...reness of the possibility of willfull action brings with it an ...der...ding of the fact of choice and the responsibility thereby. ...xiety ar... with this confrontation of freedom in that the agent who ... ch... and who has no guarantee of the final outcome, must also e... ...sibility of his choice. Personal variables of ... s...f-este...m and spec...ic self esteem were also included in ... to estimate their e...ct on risk reduction strategies. ...ducing uncertainty by handling information and reducing consequences by decreasing the amount at stake or put off, all helped the decision to buy to realize.

Taylor stated that this theory was easy to put into operation and subject to emprical validation by measuring self confidence in relation to choice of the product category, measuring perceived risk in product category choice, measuring type of loss associated with product category, measuring perceived risk in brand choice, measuring preferences for various risk reduction strategies, measuring the approximate size of groups of consumers with common characteristics in perception of risk, self confidence and preferred risk reducing ...rategies for use in evaluating cost/effectiveness of various ...keting decisions.

... this particular masters thesis, the survey includes all of ... al... except the last one, namely, measuring the approximate ... ...g... with ...on characteristics and measure of cost.

In Peter J.P. and Ryan, M.J. (1976) "An Investigation of Perceived Risk at the Brand Level," four basic assumptions were involved in the conceptual framework:

(a) Products and brands have no value to the consumer other than the services they perform;

(b) At the moment of purchase, the consumer makes a rational decision based on his expectations of services offered by the product and brand;

(c) Brands in the product class have consumer perceivable differences and these differences are salient to the consumer; and

(d) In this initial framework it's assumed that consumers are risk averse and select brands on the basis of minimizing expected losses.

This was an explanatory study (12) and data were collected from a sample of 217 juniors and seniors at a university. The product tested was automobile. Of the total sample 86 per cent reported owning automobiles and 56 per cent planning to buy one. Brand preference was operationalized with a single seven point item for each brand, on which the subjects compared the brand being studied with all other brands in the study.

The results of the study suggested that probability of loss was in fact a handled risk phenomenon and that importance of loss was an inherent loss phenomenon. Also the study gave a notion that importance of losses might be a useful segmentation variable. The finding of importance of loss as an inherent loss phenomenon had implications for promotional studies, like the ones that are aimed at changing or reinforcing perceived risk because most advertising campaigns emphasized selective demand stimulation.

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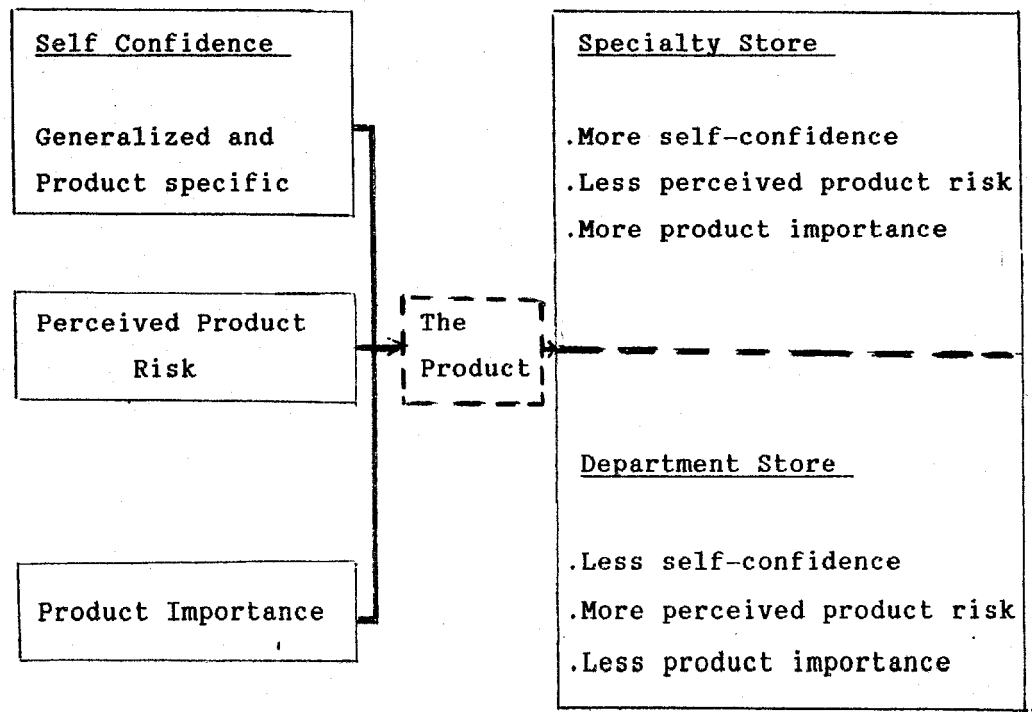
(12) Peter J.V., Ryan M.J., "An Investigation of Perceived Risk at the Brand Level," Journal of Marketing Research Vol.XIII. pp. 184-188, May 1976

Dash J.F., Schiffman L.G., Berenson C,. (1976) in their study "Risk, Personality Related Dimensions of Store Choice," (13) aimed to investigate how three risk perception variables, self-confidence, perceived product risk and product importance affect store choice for two groups of shoppers: Those who purchased audio equipment from a specialty store and those who purchased similar products from a department store.

A risk-perception-store choice paradigm can show the studied relation better.

FIGURE:2-2 RISK PERCEPTION STORE-CHOICE PARADIGM



Source: Article

(13) Dash, J.F., Schiffman, L.G., Berenson C., "Risk, Personality Related Dimensions of Store Choice," Journal of Marketing, Vol.40, pp. 32-39 January 1976

This study was realized with the assistance of two competing California retail chains. The names and addresses of potential respondents were obtained from cash and credit sales records. The final list of 772 customers, 468 from specialty stores customers and, 304 from department store customers were restricted to;

(a) Those who purchased at recent 2 months period; and

(b) Those who purchased equipment for more than $ 100 price.

The results of this study showed that specialty store customers, were more self confident, perceived less risk and considered the product area to be of greater importance. This study also showed that both general and specific self confidence were related to product risk.

As the idea to obtained from the above article, in the masters thesis general self-confidence was employed as a personality variable.

Bloch P.H., Richins M.L. (1983) in their paper titled, "A Theoretical Model for the Study of Product Importance Perceptions," (14) tried to develop a theoretical model including perceptions for product importance, levels of product involvements and task involvements.

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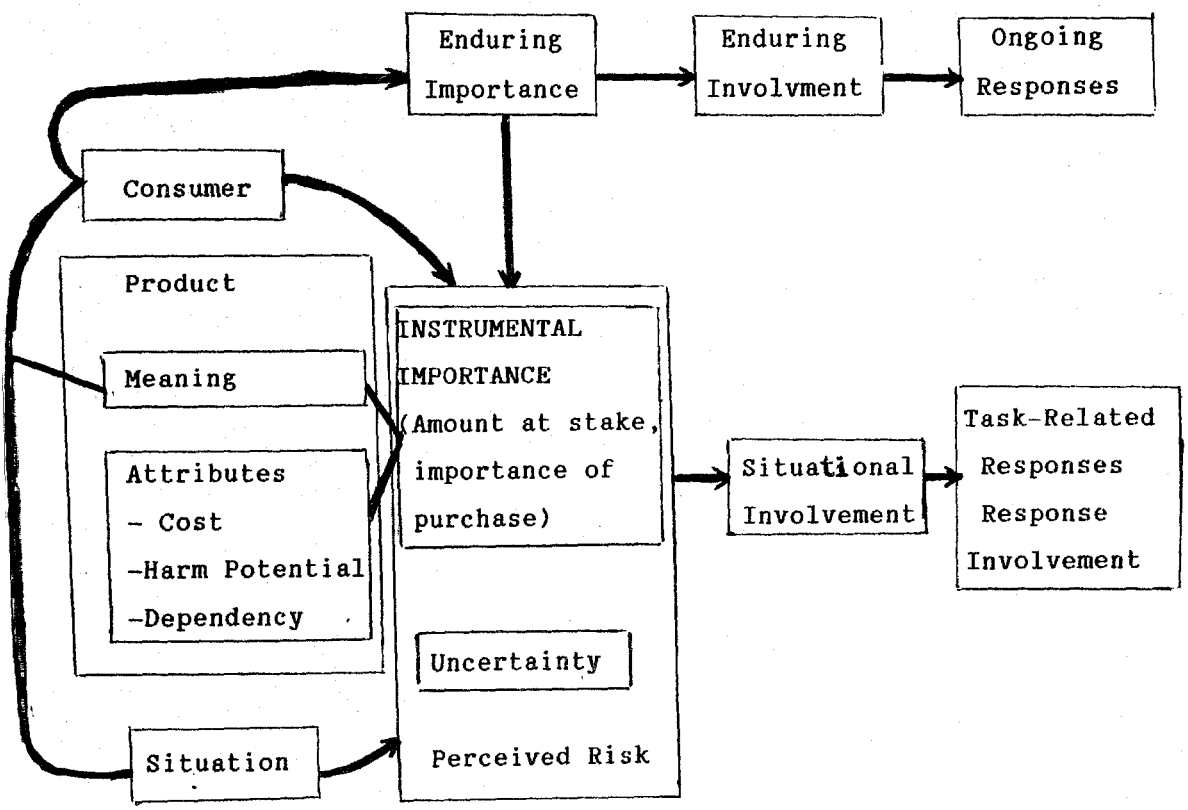
(14) Bloch P.H., Richins M.L."A Theoretical Model for The Study of Product Perceptions," Journal of Marketing, Vol.47 pp. 68-81, Summer 1983

The following figure provides a graphical summary of the variables reviewed in the paper and their relationships:

FIGURE:2-3: A MODEL OF PRODUCT IMPORTANCE



Source: Article

Reading from left to right, product meaning and consumer characteristics influenced long term perceptions of product importance. Enduring importance perceptions are then translated into lasting feelings of involvement or interest in the product class. Product involvement motivates attitudinal and behavioral responses that are independent of purchase decision making and are called ongoing responses.

Constructs pertaining to instrumental importance are shown below the dotted line. The flow here is some what more complex than enduring importance. Here instrumental importance is allied to the amount at stake component of perceived risk and importance of purchase. In the bottom, the instrumental importance and uncertainty are the two components of perceived risk and perception of risk leads to temporary fellings of involvement with the product class and the purchase task.

In all of these studies reviewed so far, the writers tried to create their own models which were similar to each other in terms of comcepts like risk, risk reduction methods, general and specific self-confidence, general self-confidence and anxiety. In most of them, the interrelations between these concepts were also theorized.

In the following study, titled " Cross-National Study of Perceived Risk," by Hoover, Green and Seagert (1978) (15). The concepts were studied in USA and Mexico.

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(15) Hoover, Green, Seagert, "Cross National Study of Perceived Risk," Journal of Marketing, pp. 102-108, July 1978

All the studies reviewed so far showed that a relationship existed between perceived risk and purchasing behaviour, however all of these supporting studies were made in USA, that when the same theories and observations were applied to other countries one had to be aware of the fact that there were differences in dimensions as economics, education, income, mobility and channels. Some of the theories of consumer behaviour seemed to be highly culture bound, while the others were applicable across cultures.

The study which was conducted in Mexico and USA had to objectives:

(a) To test the level of perceived risk associated with three common consumer products; and

(b) To determine the extend of similarity of brand loyalty/perceived risk relation in two countries.

The measure of perceived risk used in the study was a two way question:

(a) Would you say that there's danger in trying a brand of the product you've never used? Response categories were a great deal, some, not much and no danger.

(b) Would you say that you're certain that a brand of the product you haven't tried before will work as well as your present brand? Response categories were always, sometimes, seldom, never.

The translation of these questions, of which the first was related to uncertainty and the latter was to consequency element of risk, were done by repeat feedback method.

The study indicated that for three products USA sample exhibits a strong though non-linear positive relationship between perceived risk and brand loyalty. In each case Mexican sample indicated lower levels of perceived risk and higher brand loyalty.

2.1.2 Studies Related to Risk Reduction:

In this part, four studies related to risk reduction strategies will be reviewed.

Locander and Hermann, in their study "The Effect of Self Confidence and Anxiety on Information Seeking in Consumer Risk Reduction", (1979) analyzed the effect of confidence and anxiety on information seeking. (16)

The hypotheses tested were:

(a) General self-confidence wasn't related significantly to the information seeking measures;

(b) Specific self-confidence was related significantly to the tendency to reduce risk by information seeking;

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(16) Locander and Hermann, "The Effect of Self-Confidence and Anxiety on Information Seeking in Consumer Risk Reduction," Journal of Marketing Research, Vol. XVI.pp. 268-274, May 1979

(c) Both of the above would be related significantly to the information seeking; and

(d) Trait anxiety will have significant effect on explaining information seeking.

In the study the measure of scale was Taylor's anxiety scale. The ways how consumers try to seek information to satisfy a particular need were impersonal advocate, which was reading magazine advertisements, reading newspaper, listening radio commercials, watching TV commercials, or looking at point of purchase displays; impersonal independent which were checking consumer reports and trying to find technical report on products; personal advocate which was asking clerks and manager's opinion; personal independent which was trying to remember what a friend or neighbour uses, asking opinion of family members and close friends; and Direct Observation/Experience which were experiencing product demonstrations, relying on past product experience, trying product before buying, reading information on the package of the product.

The research was conducted with adult suburbans who lived in Houston, Texas. All the respondents were asked to project their information seeking pattern according to above mentioned sources. Moreover the individual differences of anxiety and specific/general self confidence were analysed. The findings of the data which was analysed by MANOVA were as follows:

(a) H_1 was accepted;

(b) H_2 was accepted;

BOĞAZİÇİ ÜNİVERSİTESİ KUTUPHANESİ

(c) H_3 was rejected because for only 2 products tried had effect on information seeking behaviour; and

(d) Anxiety proved to be important only for one product, after shave cologne, in information seeking behaviour.

Shimp and Bearden, (1972) in "Warranty Effect on the Consumers' Risk Perceptions," (17) manipulated warranty quality, warrantor reputation and price in 5 different experiments. The products in question were innovative products.

The following hypotheses were tested in the study:

(a) The higher the perceived warranty quality, the less the perceived risk associated with an innovative product;

(b) The higher the price, less the perceived performance risk associated with innovative product;

(c) The higher the price, the greater the financial risk associated with the product; and

(d) The more favorable a warrontor's reputation was perceived to be the, less financial and performance risk associated with the innovative products.

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(17) Shimp and Bearden, "Warranty Effect on the Consumers' Risk Perceptions," (Source: Not available).

The study was carried on both student and non-student environment with three levels of warranty quality at three price levels. The findings of the study were as follows:

(a) When warranty quality increased financial risk decreased more significantly than performance risk;

(b) Price didn't prove to be a significant variable for risk reducing mechanism; and

(c) A highly reputable warrantor should lessen the perceived financial and performance risk, but it wasn't enough powerful to allay the risk associated with innovative products.

The above study generated two intresting findings. One was that an outstanding warranty appeared capable of reducing consumers perceptions of potential financial risk. This suggested that perceived warranty quality might generally perform an instrumental role in allaying consumer's perceptions of the inherent financial risk in purchasing innovative product.

Undoubtedly the most famous article which was written on this subject is Roselius' article (1972), "Consumer Rankings of Risk Reduction Methods," (18).

According to Roselius, buyers often faced the dilemna of wanting to purchase a product, yet they hesitated to buy because it involved taking the risk of suffering of some kind of loss. Therefore the consumer could use a variety of methods to reduce the loss.

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(18) Roselius, T., "Consumer Rankings of Risk Reduction Methods," Journal of Marketing, Vol. 25. pp. 56-61, January 1971

When a buyer perceived risk he could:

(a) Reduce perceived risk by either decreasing the probability that the product would fall or by reducing the severity of real or imagined loss suffered if the purchase failed;

(b) He could shift from one type of perceived loss to one for which he had more tolerance;

(c) He could postpone the purchase; and

(d) He could make the purchase and absorb the unresolved risk.

The seller faced a trade off between the cost of offering a risk reliever so he will know which reliever will be helpful for different kinds of losses.

Data for the study were derived from responses of 472 housewives by a written questionnaire mailed to 1400 housewives. Risk relievers and the kinds of risks were matched in the questions using a helpfullness scale. The relievers presented were, endorsements, brand loyalty, major brand image; private testing; store image; free sample; money back guarantee; goverment testing; shopping around; buying the most expensive model and word of mouth communication. The losses in question were time, hazard, ego and money losses.

A statistical method called net favorable percentage was used to rank relievers for each kind of loss.

Findings were as follows:

(a) Brand loyalty and major brand image evoked the most consistently favorable response for all kinds of loss;

(b) Store image, shopping, free sample, word of mouth, government testing generally evoked a neutral or slightly favorable response, for all categories, except hazard loss;

(c) Endorsement, money back guarantee and private testing were slightly unfavorable or neutral at best;

(d) Buying the most expensive model was the least favored strategy; and

(e) The high-risk perceivers agreed that; Major brand image was helpful except hazard loss, Store-image was equally helpfull for all losses, Free-sample was helpfull for money and time loss, Word-of-mouth was helpfull for all kinds of losses except, hazard loss, Government testing was equally helpfull for all losses,but more helpfull for hazard loss.

This article has a very important role in the design of the particular masters thesis. The kinds of losses, time, hazard, money and ego loss and risk reduction methods are derived from this article and manipulated for the purpose of usage for Turkish sample.

The last study to be reviewed under this caption, belongs to Biehal, G. (1983), "Consumers' Prior Experiences and Perceptions in Auto Repair Choice ".(19)

This is a survey in which information for auto repair services and its determining factors were searched.

The author included four reasons for low levels of information search:

(a) Consumers might not perceive information as easily obtainable, hence, did not try to get it;

(b) Consumers might perceive information as available but did not obtain because they didn't know how to use it to make a choice;

(c) Information search might be low because consumers did not think they needed it and;

(d) Consumers might not care, the decision was a low involvement one.

The possibility that prior experiences affected information search was the focus of the research. It tried to asses how prior experiences stored in memory affected information search in the consumer's outside environment (external search) and how those stored experiences were used in the memory (internal search).

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(19) Biehal, G, "Consumers' Prior Experiences and Perceptions in Auto Repair Choice," Journal of Marketing, Vol. 47. pp. 82-91, Summer 1983

This was done in a service context-auto repair-as opposed to one in durables. The amount of search, the dimensions of repair companies that were considered, the information sources used and types of information obtained from each source were the variables of interest in the study. Two regression models were used to identify variables that were significant predictors of internal and external search, one variable being a measure of prior information in memory.

The results of the study, which included 230 households, were like; sizable percentage of respondents expressed dissatisfaction because of the need for return visits. Satisfaction increased with external search and with the number of times the repair company has been used previously.

The study demonstrated the importance of prior experiences in decision making. Approximately half of the respondents reported that they knew right away the company they would choose. But the general influence of individual difference variables on search was not very strong in the study. Age was associated with decreased external research and women reported delibrating more than men, but income and education were not cleary related to the search.

Two major conclusions were appropriate to the study:

(a) Future search needed to examine more fully to consumers' service decisions and;

(b) Future search needed to incorporate more fully to consumers prior information and its use in studies of search behaviour and satisfaction.

The relation between prior experience and perceptions are considered to be in the same direction with perception of risk thus decrease it.

2.1.3 Studies Related to Personal Influences on Risk Perceptions:

In this part, four studies related to influences on risk perceptions will be reviewed.

Arndt J., in his article (1968), "Word of Mouth Advertising and Perceived Risk,"(20) reported the relations between advertising and perceived risk by a survey. Up to this time, word-of-mouth advertising was one customer talking to another about a product or service, had been thought of as an almost mysterious force, whose effects were taken for granted.

The sample consisted of wives living in a University operated-housing complex for married students located in Cambridge. Each wife was mailed a 55 ¢ coupon and a letter inviting her to buy a new brand of coffee, Perky. The coupons which had to be redeemed in 16 days were given numbers to identify buyers. At closing time every day coupons were collected. Sixteen days after Perky was introduced structured interview was conducted with each respondent.

The hypotheses that the high risk group would be particulary likely to report having received comments about Perky wasn't supported by the data.

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(20) Arndt, J., "Word of Mouth Advertising and Perceived Risk," in Perspectives in Consumer Behaviour, Kassarjian H.H.

As a result of the study the low-risk perceivers were revealed to have more friends, therefore more opportunity to talk about Perky. Another reason for why high risk perceivers didn't appear to engage in word-of-mouth conversation was their brand-loyalty. Not only the consumers who seeked information seemed more responsive to it, but also those high in perceived risk seemed to be particularly responsive to information they seeked in comparison with information offered to them. The study has proved that information seeking was important to those who were high risk perceivers. They were more likely to seek information and were more likely to respond to information that they have sought.

The study also supported the common-sense hypothesis that the leaders would be lower in perceived risk than the non-leaders.

The second article reviewed belongs to Perry M. and Hamm C. (1969) and is titled, "Canonical Analysis of Relations Between Socioeconomic Risk and Personal Influence in Purchase Decisions" (21)

This article reported a study that investigated the relationship between the importance of personal influence as an information source and the degree of risk in 25 purchase decisions. The hypothesis tested stated that the higher the economic risk involved the greater the importance of personal influence as compared with other sources of influence.

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(21) Perry, M., and Hamm, C., "Canonical Analysis of Relations Between Socioeconomic Risk and Personal Influence in Purchase Decisions," Journal of Marketing Research, Vol. 6 pp. 351-354 August 1969.

The sample was 101 male Oklahoma State University under-graduates. They were given a questionnaire that asked them to rate the socioeconomic risk and interpersonal influence. The social risk rate was defined as how the purchase decision will affect the opinion of other people. On the other hand, economic risk was defined by how the purchase would affect the individual's ability to make other purchases. So it has been related to price of product, individual income, ability to pay and alternative uses of money.

In the present case, the store of risk and influence indexes for each of the 25 products were computed on each purchase separately, using the individual's scores for that purchase alone. The purpose of this procedure was to find the a and b weights that would maximize the canonical correlation for each of the 25 purchases. The canonical analysis provided an opportunity to examine, besides the rank order of all products, the relation between risk and influence for each product separetely.

As a result of this study, men's cologne scored the highest risk, where as color TV set was found to have social risk related with it. With respect to personal influence, no significant pattern has been found.

The findings suggested that promotional strategies in the high-risk purchases situation should try to reach the consumers through personal channel (opinion leaders, word-of-mouth) rather than general media. They should also emphasize the social benefits of the purchase more than economic ones.

The third article related to this subject belonged to Olshavsky and Miller. (1972) was titled "Consumer Expectations, Product Performance and Perceived Quality". (22)

The study investigated the effects of disconformation of expectancy for a product in both negative and positive directions under controlled laboratory conditions. Two levels of expectation and two of product performance created four conditions: high expectation high performance; high expectation-low performance; low expectation-high performance; low expectations-low performance. The predictions involved in the study were based on congruity balance models and dissonance theory. These were the thories of consumer behaviour for attitudes which were mainly derived from social psychology.

The study design included 100 male volunteers from undergraduate marketing classes. Each subject received money for their participation. The study was a 2 x 2 factorial design with high and low levels both for expectation and performance. The product in question was a tape recorder of a reel tape.

As a result, the two hypotheses were confirmed, that was the suggestion that both overstatement and understatement should result in unfavorable products evaluation was supported.

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(22) Olshavsky R.W., Miller J,A, "Consumer Expectations, Product Performance and Perceived Quality," Journal of Marketing Research, Vol. 9 pp. 19-21 February 1972.

At the end of the study, the authors also stated that while business ethics and consumerism might clearly direct the promoter to make realistic claims for his product, the results here suggested that overstating the quality of a complex, multidimensional product apperantly contributed to a more favorable evaluation and understatement to a less favorable evaluation.

This study will help the decisions on risk reduction methods by assuming that both under and overstatement of these methods can have unfavorable results on the consumers.

Woodside A.G., (1972) in his study, " Informal Group Influence on Risk Taking" (23) tried to measure the effect of informal groups to create a shifty behaviour on the consumer. The following hypotheses concerning shifts in willingness to take risk were tested in this study:

(a) Consumers acting as a group are more willing to choose riskier and potentially more beneficial product alternatives after group discussion than before it;

(b) Consumers, acting individually after group discussion are more willing to choose riskier and potentially more beneficial product alternatives than before it.

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(23) Woodside, A.G., "Informal Group Influence on Risk Taking," Journal of Marketing Research, Vol. 9 pp. 223-225 May 1972.

Fifty-six housewives participated in the experiment. A hypotethical consumer-risk taking instrument was developed to determine the perceived risk levels for specific purchase situations. The housewives answered the risk-taking instrument for two times: before discussion after discussion. And the change in housewives willingness to take risk in the product situations was measured as the difference between before and after discussion scores on the risk taking instrument. A positive result indicated as increase in the willingness to take risk and vice versa. All the answers for eight products were summed for each individual.

As a result, the first hypothesis was supported. Older women who were older than 50, seemed more apprehensive of the risky product choices and didn't participate in discussions. The second hypothesis was also supported and young housewives appeared to have covertly accepted the overt group decision change toward risk taking.

The study indicates that the risky-shift phenomenon found in social psychology studies may also exist in consumer-related product decision making. It can be said that a risk-reduction process or neutrilizing process of disagreeable group judgements that unwise decisions were made wasn't supported. (24)

All of the above reviewed studies, contributed to the particular masters thesis by theorizing risk, risk reduction methods, and personal influences on risk. They covered a period of time between 1967 and 1983 and indicated the evolution of risk concept clearly.

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(24) This article has been questioned by Reingen and Woodside has redefended his article; in Journal of Marketing Research, Vol.XI pp. 223-226 May 1974.

2.2. Studies Related to Female Food Shopping Behaviour:

In this section some selected studies on female characteristics as they are related to food shopping behaviour and patterns will be reviewed. The number of the articles that will be reviewed are seven.

In the following pragraphs, articles conceptualizing the changing female role in the market place will be reviewed first.

Mc Call, S.H. in her article (1977) named "Meet The Workwife," (25) investigated how the women changed as they started working.

The marketers insisted that as the women started to work outside, the women acquired two major societal roles. An outside worker and a housewife; these double roles these created a new lifestyle which had implications for marketing practices.

The reasons for working outside were listed as follows:

(a) Some jobs especially require women to work,

(b) New birth control procedures,

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(25) Mc. Call, S.H., "Meet The Workwife," Journal of Marketing pp. 55-61, July 1977.

(c) The increase in life expectancy of women,

(d) The continously rising cost of living,

(e) The poliferation of labour-saving devices for women to be used at home,

(f) Most of the women being more and more satisfied by their jobs; and

(g) The role of "workwife" becoming acceptable to the culture.

The article moreover looked at the relation between the working women and their possible changes in consumer behaviour, due to their newroles.

In the following study, Douglas S. and Urban D.C., in their study, (1977) "Life Style Analysis to Profile Women in International Markets," (26). They tested the life style or psychographic variables which could provide some insights to use effective market segmentation strategies in different countries.

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(26) Douglas, S., Urban, D.C., "Life Style Analyis to Profile Women in International Markets," Journal of Marketing pp. 46-54, July 1977.

This study of women in three countries, USA, UK, and France illustared how research could be used in examining consumer behaviour. The comparison of women's life styles were based on data collected independently in the three countries, using different designs and questionnaires.

This study enlightened the differences of major-life-style dimensions identified by six factors for the three countries.

(a) The home factor: In all three countries, the traditional male role ideology remained as a central theme in women's lives.

(b) The social factor: This factor was involved with involvement in social activities. In UK and USA this factor tended to be highly personalized, individual, suggesting a certain dynamism. In France, women appeared to identify their own their own self-concepts relative to people around them, rather than independently.

(c) The frustration factor: In USA and UK this emerged primaly in terms of dissatisfaction with home life or the degree of personal achievement. On the other hand, in France, this factor appeared to be more introvert and personal, manifested by self-confidence, shyness, uncertainty about future.

(d) The innovation factor: In USA and UK this factor, took the form of willingness to experiment and buy new things. In France it was related with buying new products with interest in fashion and in being well dressed.

(e) The intellectual factor: In the USA and UK, but not in France, covered a number of things, ranging from preferences for print media to TV; classical as opposed to popular music.

(f) The role factor: Only in French sample, this factor was basic it was concerned with traditional perceptions of male and female roles.

These studies suggested the existance of comparable basis for examining life-style patterns in international markets and the implications of differences in lifestyle patterning would vary from one product class to another.

In the following study, Reynolds W.D., Crask M.R., and Wells D. (1977) main focus were women as its title, "The Modern Feminine Life Style," (27) indicated.

As contempory society was redefining the role of the house wife and as the feminism was rising in parallel with the increasing number of working-women. The authors tried to explain and find the place of women in the society in their article.

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(27) Reynolds, F.D., Crask, M.R., "The Modern Feminine Life Style," Journal of Marketing pp. 38-45, July 1977.

In this study traditional and modern women were compared by 171 agree, disagree interest and opinion statements, 88 frequency of participation activity statements 58 personal usage statements, 86 media-exposure and several demographics.

The results related to demographics were as follows:

(a) A greater percentage of women were in the modern group, due to demographic 'age'. Only those women over 55 years old were more traditional,

(b) Lower education level was observed for traditional people,

(c) Non-working women were more traditional,

(d) The women are trying to break their bondage from the house, by not trying to destory the power structure in the family,

(e) Modern women were showing the glimpses of being more attendant to their physical attractiveness,

(f) Women preferring modern orientation also professed a cosmopolitan, self-confident attitude,

(g) Modern women and working women demonstrated more participation in all activities except church attendence,

(i) Media patterns also changed for modern and traditional women; and

(j) Modern women were less satisfied with their current situation in life than did traditionalists but more optimistic about the future.

Lozer, W. and Smallwood, J.E. (1977) in their study titled "The Changing Demographics of Women", (28) investigated trends that had great and growing significance for marketing management.

The following were reported by the writers:

(a) The number of working women nearly doubled between 1950-1974 in USA. The largest increase occuring among youngest and oldest;

(b) The labour force participation for married women has increased;

(c) The higher the husband's and family's earnings, the more likely was there to be a workingwife;

(d) Increasing educational accomplishments by women portended larger proportions of women in the labor force;

(e) Full-time and part-time opportunites of employment were increasing; and

(f) The reasons why women work were, necessity and personal preference.

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(28) Lazer, W.,Smallwood J.E., "The Changing Demographics of Women," Journal of Marketing pp. 14-22, July 1977.

The implications for marketers were:

(a) Working women could justify economic expenditures for, and psychologically accept, expensive appliances and household equipment,

(b) Working women were unable to shop during regular shopping hours,

(c) Some shopping might be done by wives, daughters and sons,

(d) Appliances that formerly had a female image, like vacuum cleaner, tended to take a unisex image,

(e) Working women placed a premium on a youthful appearance and on the "maintenance of self". Advancement in business was often associated with being young,

(f) The family-dominated meal scene and wives roles has been changed with fast food or family-restaurants,

(g) Working women were more education oriented and interested in self improvement, travel, leisure and individualism,

(h) Working women tended to become more equal-decision makers at home,

(i) Availability of services on weekends became increasingly important,

(j) Women disliked the way they're depicted in ads, if there was a considerable variance between their desired and actual roles,

(k) Price for some products became less important than availability and time savings,

(l) Women were becoming more cosmopolitan in their tastes and expectations as they're exposed to world outside home.

In 1977, Ferber M.A. and Lowry H.M. wrote an article titled "Woman's Place: National Differences in the Occupational Mosaic" (29). In this article international differences and similarities between women were studied. The aim was to examine the situation in a wide variety of countries with different cultures, religious faiths, and political and economic ideologies. If the economic status of women differed significantly among such countries, the conclusion that biology was not the sole determinant of women's destiy was inescapable.

The data of women of 157 countries which were obtained from International Labour Organization were studied in parallel to economic development.

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(29) Ferber, M.A., Lowry H.M., "Woman's Place: National Differences in The Occupational Mosaic," Journal of Marketing pp. 23-30, July 1977.

The conclusions were as follows:

(a) The ratio of labour force participation of women as compared to men varied widely, and the variations could not be attributed to economic development,

(b) While women's occupational distribution differed significantly from that of men in all countries, it also differed significantly between countries studied,

(c) While earnings of women were lower than those of men in all countries, the extent of the difference varied widely between countries over time.

This evidence weakened the idea that the economic status of women was primarily determined by inherent, immutable differences between the sexes and pointed toward the importance of cultural beliefs in determining women's place.

The following studies which will be discussed in the following paragraphs concentrate on food shopping of women.

Reilly M., (1982) in his article named "Working Wives and Convenience Consumption," (30) examined role overload as a possible explanation for the lack of direct links between working wife families and convenience consumption. The model the author uses to explain the relationship is given below:

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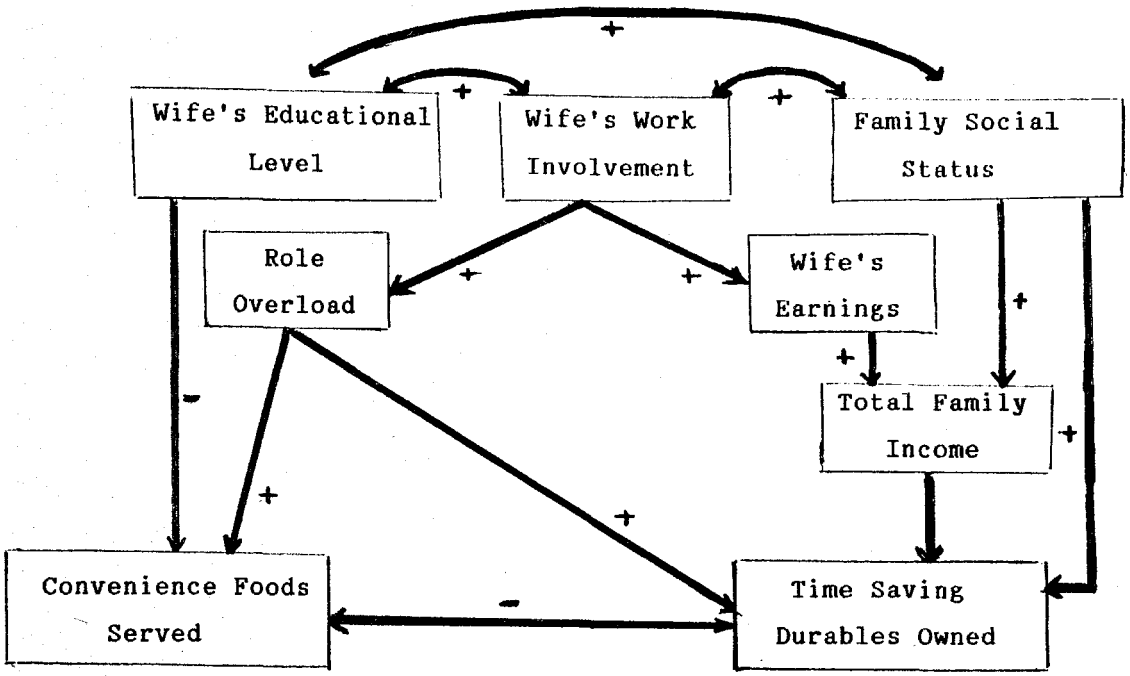
(30) Reilly, M., "Working Wives and Convenience Consumption," Journal of Consumer Research, Vol. 8, pp. 407-418, March 1982.

FIGURE:2-4 A CASUAL MODEL



Indicates Unanalyzed Correlation

Indicates Proposed Causal Flow

Source: Article

In the above figure, its proposed that when the wife was working as she would have a work overload, she would turn to convenience goods, although her education level draws her back a little. Moreover she would have more time saving durables at home. Of course total family income which increased as a function of woman's working would affect the time saving durables owned. Family social status would also influence these home appliances utilization.

The data used to test the structural-equation model resulted from personal interviews and self-administered questionnaires using an area cluster sample. Multiple measures of family social status and work involvement were taken. The structural equation parameters were estimated using a LISREL IV computer program.

The hypothesized relationships which are also shown in the figure above, were all statistically significant with the exception of that between family social status and durable ownership and that between role overload and convenience foods served. Therefore its reasonable to conclude that the proposed model of relationships between the wife's work status and family's consumption behaviour accurately represents the data.

The last article which will be rewieved in this section, has contributed to the particular master's thesis with a measure of traditionality and being contemporary. This article is written by Roberts M.L., and Wortzel R.H., (1979) is titled as "New Life Style Determinants of Women's Food Shopping Behaviour." (31)

As women participated in labour force more and more, marketers focused attention on changing life styles and consumption patterns. In this study, life-style variables were used as predictors of food-shopping behaviour. The purpose behind this was that, the author thought that rather than working/nonworking classification general role orientations would reflect women's attitudes better.

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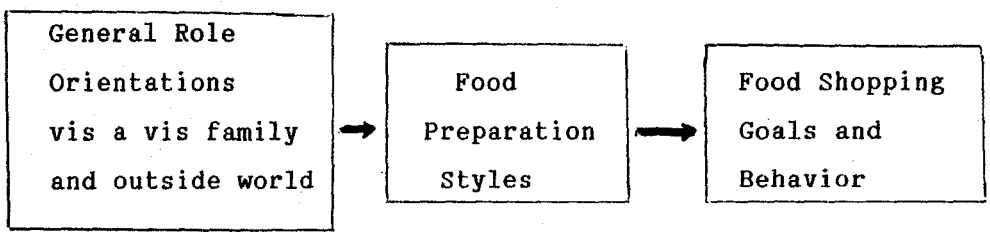
(31) Roberts, M.L. and Wortzel, R.H., "New Life Style Determinants of Women's Food Shopping Behaviour," Journal of Marketing, Vol. 43 Number 3, pp. 28-40, Summer 1979.

This paper presented the results of a study of women's attitudes and behaviour related to one of their traditionally important consumption-related roles: food-shopping and food-preparation and discussed their remifications for marketing strategy. This as shown in the figure below:

FIGURE 2:5 HIERARCHY OF EFFECTS MODEL OF FOOD SHOPPING GOALS



Source: Article

Specifically, the following hypotheses were dealt with:

(a) H_1: Women who are oriented toward traditional roles or life styles will exhibit traditional attitudes toward meal preparation and food shopping.

A. Traditional women in lower family income brackets will be concerned about price.

B. Traditional women in higher income brackets will be concerned about quality.

(b) H_2: Women who are oriented towards contemporary roles or life styles will be concerned about saving time regardless of family income.

(c) H_3: Specific attitudes toward meal preparation will be better predictors of food shopping goals and behaviours than will general role orientation variables.

(d) H_4: Demographic variables including women's employment status will be poor predictors of food shopping and behaviours.

These hypotheses were tested using a structured questionnaire responded by 169 people of voluntary organizations.

The following findings can be stated:

(a) Traditionally oriented women were older, married longer, had larger households, tended not to have small children. They were in lower income group. Fewer demographics correlated with a "Contemporary Orientation" which was independent of age, and comprimised of women who were more likely to be working now and even more likely to plan to work in the future,

(b) There were few correlations between the demographics and shopping goals and behaviours,

(c) The number of significant correlations decreased as the analysis progressed from the role orientation factors to the food peparation styles and onto shopping goals and behaviours,

(d) No one demographic variable was strong enough to predict role orientation. There was instead a complex mingling of influences which affected women's role orientations,

(e) Traditional orientation was the most highly correlated with concern for quality, had small correlation with concern for time. This indicates that the traditional woman wants to provide high quality food for her family at a reasonable cost considering time little,

(f) In order to test H_3 and H_4 a multiple correlation analysis was conducted. But the results of these analysis are not stable enough to be conclusive,

(g) For 'concern for price' and 'price minimization', the demographic variables contributed as much or more of the explained variance than did all the life-style factors.

As considering the study as a whole, the writers thought that the results seemed to point the way to further research which should be useful in helping to specify determinants of women's food shopping behaviour.

Moreover this study also showed that unidimensional view of women's roles could lead to insignificant correlations or unwarranted correlations. Therefore it would be better to hold a multidimensional view of women's world and her various roles.

All of these reviewed articles constitute the theoretical background of the master's thesis. The review was done by classifying the articles into two major groups: those related to the concept of risk and those related to the concept of females.

Within the first group, the articles that were conceptualizing risk were reclassified. In this section, starting by Bauer, articles defining risk, classifying it, searching the relation between risk and brand loyalty, assesing the perceived risk created by phone-shopping, evaluating perception of risk in buying from a store or a salesman, measuring perceived error tolerance for new product, investigating risk for different brands of automobiles, studying perceived risk cross-nationally were reviewed. The second relassification of perceived risk was related to risk reduction methods in this section, information seeking effect, warranty effect, prior experiences, word of mouth communication were the studied variables. The last reclassification included personal influences on perception of risk, including expectations, informal group influence, and self-confidence.

With in the second group, the articles studied were related to women's changing characteristics and female food shopping behaviour. Working status, education and income level, traditional and contemporary life styles were the related variables.

CHAPTER THREE

III. A STUDY ON WOMEN'S FOOD SHOPPING BEHAVIOUR AND RISK PERCEPTIONS

In the first part of this chapter, the field study of which results are analysed in the following sections, and in the second part related findings will be described.

3.1 Research Design and Methodology:

3.1.1 Problem Formulation and Research Purpose:

Perception of risk is one of the classical themes of Consumer Behaviour and there are a number of studies have been conducted on it. As women's role is increasing in the society, women have also been subject of many studies. But all of these studies are made in USA. Moreover, all of these studies related to perception of risk were related to what we might refer as the definition of perceived risk in certain shopping behaviours and its relation to certain demographic and psychological-self explanatory variables. Only a few were related to risk reduction methods and all were conducted with American samples.

Therefore Turkey appears to be an unexplored area for risk perception. At the same time, there's a development towards creating public opinion for consumer protection. Moreover employment rate among women who do food shopping is increasing. But its important to emphasize the degree of consciousness women acquire in food shopping.

The purpose of this study is to analyse risk perceptions and risk reduction methods which Turkish women face in food shopping. The effects of demographics and psychographics are also used as variables that can have effect in food shopping. The study also analyses if perceptions of risk are discriminated by working-status, kind of risk women with children perceive, and risk reduction methods.

3.1.2 Research Objective and Research Questions:

The above discussed research purpose was testified with the help of a field study that was carried in Bosphorus University. The direction of this study can be explained by the following questions:

(a) Who does food shopping at home?

(b) Who must do food-shopping?

(c) What are the attitudes towards food shopping?

(d) What is the frequency of food shopping?

(e) Which outlets are preferred in food shopping?

(f) What kinds of foods create hesitation in buying situation?

(g) Can some demographics and psychological variables be the determinants of food shopping?

(h) What kinds of risks are faced in food-shopping?

(i) Which risk reduction methods are more favored?

(j) Do certain risk reduction methods define a certain profile of women?

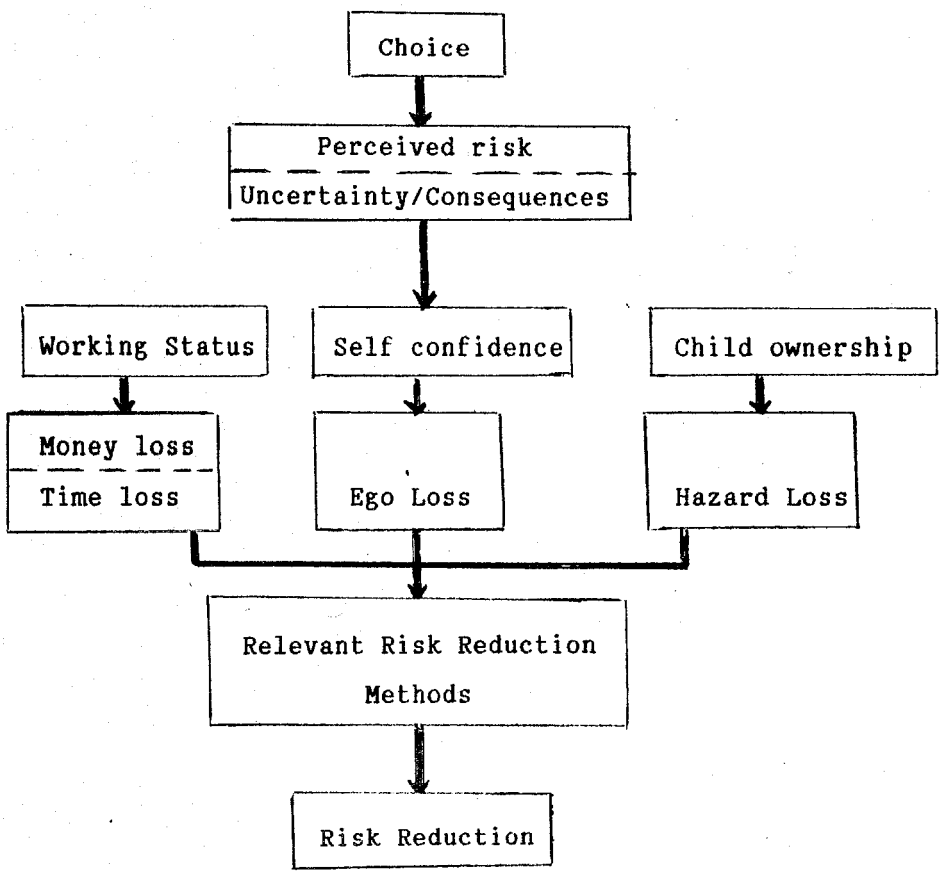
(k) As a new role of women emerging in our society; the workwoman to replace the housewife, how will food-shopping behaviour be effected?

(l) Is food shopping and risk behaviour critically different for working and non working women?

3.1.3 Model and Hypotheses:

The variables that were used in this study can be modeled as in the following flowchart:

FIGURE 3:1 A MODEL FOR FIELD STUDY



Source: Thesis

In the study the following hypotheses will be analysed:

(a) H_1: Working women perceive higher risk in food-shopping than non-working women.

(b) H_2: Working women exercise time loss more than non working women in food shopping.

(c) H_3: Working women exercise money-loss more than non working women in food shopping.

(d) H_4: Women with children exercise more hazard loss than non-working women in food shopping.

(e) H_5: Non-self confident women exercise more ego loss than self-confident women.

(f) H_6: Women prefer consumer-protective ways of risk reduction methods most.

(g) H_7: Risk reduction methods discriminate low risk perceivers from high risk perceivers.

(h) H_8: Demographic variables of age, marital status, education, income, working status, childownership, and self-confidence with being contemporary/ traditional together discriminate low risk perceivers from high risk perceivers.

3.1.4 Data Collection Procedure, Instrument and the Sampling Plan:

This study can be considered as a descriptive research because its aim is to describe certain characteristics of two groups: high and low risk perceivers and it will help us to make some generalizations.

The descriptive research made is in the form of a cross-sectional one as its use of a sample of elements from the population of interest where the elements are measured at a single point of time. It provides a snapshot of variables at a single point of time. Moreover, the type of the study is a field study as its concerned with in-depth study of few typical situations. (32)

For sampling, a non-probability design of a mixture of quota and convenience sampling is used. The questionnaire which is the main data collection instrument has been distributed in the campus of Bosphorus University. The students who have volunteered to help this particular master's thesis, have been instructed for the administrating the questionnaires which were answered by females. Of 116 distributed questionnaires 88 have been returned and 85 of them were utilized in data analysis, indicating a collection success score of 73 per cent.

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(32) Churchill, G. Marketing Research: Methodological Foundations. 2 nd ed. Illinois: The Dryden Press, 1976. pp. 49-65

Therefore, data was collected from female respondents which constituted closest environment of Bosphorus University students. They were either the students' mothers, sisters or neighbours. A balance of working to non-working women ratio has been maintained as a major aim of the sampling. As a result, 51.8 and 48.2 were the percentages for working to non-working women respectively.

The data collection instrument was a structured and undisguised questionnaire. Questions were presented with exactly the same wording and in the same order to all respondents. The main aim of this was standardization and guarantee of the comparability of the responses.

Moreover, in the questionnaire the responses as well as the questions were standardized. Fixed alternative questions in which responses are limited to stated alternatives were utilized. Although the respondent might have difficulty in replying, the answers are easy to tabulate and analyse. But still this type of questionnaire has advantages such as, the subject does not have an opinion still is forced to answer and the subject does have an opinion but none of the response categories allow accurate expression of it.

In the following paragraphs, the 10 sections of the questionnaire will be explained: (33)

Section 1: In this section, there are two questions which are aiming to define the responsible member/members of the family for food shopping at present and ideally.

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(33) See: Questionnaire in Appendix 1.

Section 2: This section consists of a set of questions which searches women's attitudes towards food shopping. The categories are related to degree of fondness of food shopping. An ordinal categorized scale is utilized for this purpose.

Section 3: This section investigates the frequency of food shopping. The categories are more than once a week, once a week, once in two weeks, and others. An ordinal categorized scale is used.

Section 4: This section is related to outlets of foodshopping. The responses are expected by a likert scale for this question. For outlets like, grocers', supermarket, market, cooperatives, Belediye Tanzim (Municipality Store), specialty shops (butchers', etc), the frequency of food-shopping is analysed in four categories: always-frequently-sometimes-never.

Section 5: In this section, the level of hesitancy involved in buying food product classes such as meat products, cans, convenience food, milk and dairy products, flour and floury products, fresh fruit and vegatable. The levels of hesitancy are measured as always, frequently, sometimes, never by a multiple likert scale.

Section 6: This section includes three questions which measure level of risk. The high and low risk categories are obtained by the manupilation of the results. The risk measures were: (34)

(a) Would you say that you are "always", "frequently", "sometimes", or "never" certain that a brand of the product you have not tried before will work as well as your present brand?

(b) Would you say that there's "a great deal", "some", "not much", "no" danger in trying a brand of the product you have never used before?

Section 7: This section includes the questions where kinds of risk perceived in food shopping are examined. There are 13 comments referring to women's feelings when a food item they bought, turns out to be unfresh, useless or corrupt and the attitudes of the respondents towards these claims are required. The comments are randomly listed each one defining one of the kinds of losses; ego loss, time loss, money loss or hazard loss. (35) By a mathematical manipulation, for each respondent a time loss, money loss, ego loss or hazard loss score is also obtained. These scores are used in further analyses.

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(34) Hoover, R., Green, R., Seagert, J., "Cross National Study of Perceived Risk", Journal of Marketing, pp. 102-108, July 1978.

(35) Roselius, Ted, "Consumer Rankings of Risk Reduction Methods", Journal of Marketing Vol. 35 pp. 50-61, January 1971.

The below table shows perceived risk comments:

TABLE 3:1 PERCEIVED RISK COMMENTS

I think I used up time for something worthless.

I lose confidence in the brand.

I feel dump.

I think I spent money for something worthless.

I think I did something which is harmful to health.

I feel very upset.

I think I could do something else in the time I spent.

I think I would buy better things with the amount at stake.

I feel sorry for I'm deceived.

I lose confidence in the outlet.

I think I'll spend time in rebuying.

I think someone else must do the shopping.

I think I risked the family's health.

Source: Questionnaire.

Section 8: This section deals with Risk Reduction Methods for perceived risk. A likert scale of conformity is employed for responses. Respondents had to evaluate 11 risk reliever methods. The risk relievers are listed in the following table:

TABLE 3:2 RISK RELIEVERS

I don't shop in the same outlet again.

I don't buy the same brand again.

I look for Turkish Standards Institution or Food Control Endorsement.

I want to taste/try.

I want my money back.

I want to take advice.

I want to buy most expensive brand.

I shop around.

I want to buy the most advertised brand.

I want other people to shop.

I tell others about the item.

Source: Questionnaire.

Section 9: This section probes the socio-demographic characteristics of women. Age, marital status, education level, net total family income, childownership are the variables studied.

Section 10: This section deals with two psychological variables. The first one aims at the classification of women as contemporary and traditional. The comments are responded on an agreement scale which was in the form of likert. The composite value of scores are used for classification. (36)

The second variable is related to general-self-confidence. The scores are obtained by a likert scale of fitness. The scores are manipulated to classify women into two groups; as self confident and non-self confident. (37), (38)

After all the questionnaires were coded, SPSS (Statistical Package Program for Social Sciences) have been employed and sub-programs like one-way Frequency, Cross-tabulations and Discriminant Analysis were utilized.

The below table summarizes the kinds of analysis conducted on the hypotheses:

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(36) Roberts, M.L., Wortzel, H.L., "New Life Style Determinants of Women's Food Shopping Behaviour", Journal of Marketing, Vol. 43, pp. 28-40 Summer 1979.

(37) Locander, W.B., Hermann, P.W., "The Effect of Self-Confidence and Anxiety on Information Seeking in Consumer Risk Reduction", Journal of Marketing Vol. 9 pp. 268-274, May 1979

(38) See: Appendix 2 for the adapted form of Gorsuch, Spielberger and Lushene's "Self Evaluation Test". The test is adapted by Öner and Le Compte in Bosphorus University.

TABLE 3:3 HYPOTHESES AND ANALYSES

Hypothesis	Operationalization of Variables	Type of Analysis Conducted
1. Working women perceive higher risks	Working status and risk perception	Cross-tabulation
2. Working women exercise higher time loss	Working status and time loss	Cross-tabulation
3. Working women exercise higher money loss	Working status and money loss	Cross-tabulation
4. Women with children exercise higher hazard loss	Working status and hazard loss	Cross-tabulation
5. Non-self confident women exercise higher ego loss	Self-confidence and ego-loss	Cross-tabulation
6. Women prefer consumer protective ways of risk reduction	Risk reduction methods	Frequency analysis
7. Risk reduction methods discriminate high and low risk perceivers	Risk perception and risk reduction methods	Discriminant analysis
8. Demographics and psychographics discriminate high and low risk perceivers	Risk perception and age, income,education,morital status,childownership, self confidence, contemporary/traditional	Discriminant analysis

Source: Thesis

3.1.5 Limitations of The Study:

Data collection procedure and analysing it has consumed a recognizable level of accuracy and effort. Nevertheless, this study has some limitations either caused by the sample, or the way the questions are directed to the respondents. These limitations will be discussed in this section.

The major limitation of the study roots from the administration of the study. The questionnaires were filled by the respondents without directly facing the writer. The students who were responsible for the distribution of the questionnaires were informed, but the writer thinks that this might not be enough. Moreover the sample, which consisted of the close environment of Bosphorus University students, namely their mothers, neighbours etc., come from upper income and education levels of the society. This limits the scope of generalization of our findings to other samples; therefore, the study lacks external validity. The application of the recommendations which will be discussed in chapter four, section two, will be suitable when similar groups in the society are target markets or a target in any study.

One other limitation of the study is due to the lack of literature on this subject in Turkey. The study is an overlapping study of two subjects; risk perception and female shopping behaviour. Both of these subjects are untouched in our country. This has led the writer to utilize studies that were representing other cultures' behaviour. But, the effect of this limitation has been decreased to some extent by an accurate translation and adaptation of the questions.

The last limitation of the study turns out to be the unidimensional view of women's role and related behaviour. That is, the relationship between women's food shopping and certain demographics, one taken at a time are investigated. But this can lead to insignificant or unwarranted conclusions. Whether a women is employed outside home or not, she is likely to hold a multidimensional view of her world and her various roles, which is directly correlated with their perception of risk and risk reduction methods. In this study, other than multidimensional view of their world, unidimensional demographic variables are used, which turns out to be a limitation. Future studres are hoped to include multidimensional views in place of unidimensional.

3.2 Findings:

In this second part of chapter three, the results of the study will be reviewed. This review will follow an order where summary findings will be discussed first. Hypotheses related findings will succeed summary findings. Finally, other findings will be discussed.

3.2.1 Summary Findings on Variables Studied:

In this section, the results of the frequency analyses applied on the data will be given in the form of tables. Each table will have a short explanation below it.

TABLE 3:4 SOCIO-ECONOMIC COMPOSITION OF SURVEY RESPONDENTS

Socio-Economic Variables	Number	Percent
Age:		
20 and lower	10	11.8
21 - 30	23	27.1
31 - 40	19	22.4
41 - 50	23	27.1
51 - 60	9	10.6
61 - more	1	1.2
	85	100.0
Marital Status:		
Single	23	27.5
Married	54	63.5
Widow/Divorced	8	9.0
	85	100.0

TABLE 3:4 CONTINUED

Socio-Economic Variables	Number	Percent
Education Level:		
Literate	3	3.5
Primary School	6	7.1
Middle-School	5	5.9
High School	26	30.6
College/University	38	44.7
Graduate	7	8.2
	85	100.0
Income:		
Low	22	25.9
Medium	40	47.1
High	23	27.1
	85	100.0
Working Status:		
Yes	44	51.8
No	41	48.2
	85	100.0

TABLE 3:4 CONTINUED

Socid-Economic Variables	Number	Percent
Child Ownership:		
Yes	48	56.5
No	37	43.5
	85	100.0
Contemporary/Traditional:		
Contemporary	56	65.9
Traditional	29	34.1
	85	100.0
General Self Confidence:		
Self-Confident	55	64.7
Non self-Confident	30	35.3
	85	100.0

Source: Thesis (39)

(39) See: Questionnaire in the Appendix 1. The findings are related to questions 1 to 8 in page 3.

As seen from the above table distribution of socioeconomic characteristics are quite balanced across sub categories. For every variable studied, variance scores were low which was a determinant of healthy distribution.

TABLE 3:5 SURVEY RESPONDENTS' SHOPPING PRACTICES AND ATTITUDES

Shopping Practices and Attitudes	Number	Percent
Who does food shopping:		
Mother	56	67.5
Father	6	7.2
Mother and father together	16	19.3
Each member of the family	3	3.6
Other	2	2.4
	83	100.0
Who should do food shopping:		
Mother	49	58.3
Father	3	3.6
Mother and father together	17	20.2
Each member of the family	8	9.5
Other	7	8.3
	84	100.0

TABLE 3:5 CONTINUED

Shopping Practices and Attitudes	Number	Percent
Attitudes toward food shopping:		
I like doing it a lot	21	24.7
I like doing it	44	51.8
I don't like doing it	17	3.5
I do it when I have to	3	20.0
	85	100.0
Shopping Trips:		
More than once a week	63	75.0
Once a week	18	21.4
Once in two weeks	2	2.4
More	1	1.2
	84	100.0

Source: Thesis (40)

As seen from the above table, "mother" does and is expected to do food shopping within the family. Food shopping was moderately liked by women and was performed more than once a week by the majority of the sample.

(40) See: Questionnaire in the Appendix 1. The findings are related to questions 1, 2, 3, 4 in page 1.

TABLE 3:6 OUTLET PREFERENCES OF SURVEY RESPONDENTS

Preference	Grocers'		Supermarket		Market		Cooperative		Munipality Store		Specialty outlets	
	No	Percent	No	Percent	No	Percent	No	Percent	No	Percent	No	Percent
Always	19	24.4	21	24.7	16	19.0	2	2.4	3	3.6	22	26.2
Frequently/ Generally	12	14.1	42	49.4	13	15.5	6	7.1	1	1.2	21	25.0
Sometimes	49	57.6	21	24.7	30	35.7	21	25.0	29	34.9	34	41.7
Never	5	5.9	1	1.2	25	29.8	55	65.5	50	60.2	6	7.1
Total	85	100.0	85	100.0	84	100.0	84	100.0	83	100.0	83	100.0

Source: Thesis (41)

As the above table represents outlets like grocers, supermarket and specialty outlets where only one kind of food is sold (butchers, etc.) are always and frequently preferred. Open market is modiumly preferred whereas cooperatives and municipality stores are less preferred.

(41) See: Questionnaire in the Appendix 1. The findings are related to questions 5.

TABLE 3:7 HESITANCY LEVELS FOR CLASSES OF FOOD ITEMS

Hesitation Level	Meat Products		Canned Food		Ready-Food		Milk/Diary		Floury Items		Fruit and Vegetabl	
	No	Percent	No	Percent	No	Percent	No	Percent	No	Percent	No	Percent
Always	9	10.6	21	24.7	42	50.6	8	9.5	-	-	1	1.2
Generally	17	20.0	12	14.1	26	31.3	16	19.1	6	7.1	6	7.1
Sometimes	44	51.8	33	38.8	9	10.8	33	39.3	39	45.9	23	27.1
Never	15	17.6	19	22.4	6	7.3	27	32.1	40	47.0	55	64.7
Total	85	100.0	85	100.0	83	100.0	84	100.0	85	100.0	85	100.0

Source: Thesis (42)

As seen from the above table, it's obvious that the level of hesitancy exercised is highest in ready-food. It's followed by canned food, meat products, milk and diary product, fresh fruit and vegetable, flour and derivatives being the least hesitated product class.

(42) See: Questionnaire in the Appendix 1. The findings are related to question 6.

TABLE 3:8 RISK PERCEPTION LEVELS

Risk Perception Levels	Number	Percent
Low risk perceivers	38	44.7
High risk perceivers	47	55.3
	85	100.0

Source: Thesis (43)

The sample turned to be divided into two levels of high and low risk perception as seen from the above table.

(43) See: Questionnaire in the Appendix 1. The findings are related to questions 7 and 8.

TABLE 3:9 TYPES OF LOSS EXPERIENCED

pes of Loss	Totally Agree		Agree		Disagree		Totally Disagree		Mean	Variance
	No	Percent	No	Percent	No	Percent	No	Percent		
I think I used up my time	23	27.1	38	44.7	19	22.4	5	5.8	2.071	.733
I lose confidence in brand	49	57.6	23	38.8	2	2.4	1	1.2	1.471	.371
I feel dump	7	8.2	16	18.8	41	48.2	21	24.7	2.894	.762
I think I spent money for something worthless	52	61.9	23	27.4	7	8.3	2	2.4	1.512	.566
I think the item may be harmful for health	26	31.0	38	45.2	11	13.1	9	107	2.036	.878
I feel upset	31	36.5	38	44.7	14	16.5	2	2.4	1.847	.607
I could do other things in the time I spent	23	27.1	33	38.8	19	22.4	10	11.8	2.188	.940
I could buy other things with the money at stake	40	47.1	38	44.7	4	4.7	3	3.5	1.647	.541

TABLE 3:9 CONTINUED

Types of Loss	Totally Agree		Agree		Disagree		Totally Disagree		Mean	Variance
	No	Percent	No	Percent	No	Percent	No	Percent		
i) I fell sorry for I'm deceived	21	25.0	40	47.6	17	20.2	6	7.1	2.095	.738
j) I lose confidence in outlet	24	28.2	34	40.0	19	22.4	8	9.4	2.129	.876
k) I think I'll spend more time in rebuying	4	4.7	37	43.5	33	38.8	11	12.9	2.600	.600
l) I think someone else must do shopping	1	1.2	3	3.5	37	43.5	44	51.8	3.459	.394
m) I think I risked family's health	10	11.8	26	30.6	37	43.5	12	14.1	2.600	.767

Source: Thesis (44)

(44) See: Questionnaire in the Appendix 1. The findings are related to questions 10 and 2.

An agreement percentage which is derived from a compiled score of totally agree and agree level, shows that kinds of losses such as lose confidence in the brand, buy something else with the amount at stake, spend money for something worthless, feel upset, do something which might be harmful to health, feel deceived were the ones that were highly agreed. All the above kinds of losses were accepted by more than 70 percent of the sample.

TABLE 3:10 CONFORMITY WITH RISK REDUCTION METHODS

Risk Relievers	Most Suiting		Suiting		Less Suiting		Not Suiting		Mean	Variance
	No	Percent	No	Percent	No	Percent	No	Percent		
a) I don't shop in the same place again	13	15.3	23	27.1	33	38.8	16	18.8	2.612	.931
b) I don't buy the same brand again	45	52.9	20	23.5	19	22.4	1	1.2	1.718	.729
c) I look for TSI or Food Control Stamp	35	41.7	33	39.3	8	9.5	8	9.5	1.869	.886
d) I want to try/taste	15	17.9	43	51.2	15	17.9	13	13.1	2.262	.822
e) I want my money back	17	20.0	14	16.5	23	27.1	31	36.5	2.800	1.305
f) I want information from others	9	10.7	40	47.6	25	29.8	10	11.9	2.429	.706
g) I want to buy the most expensive brand	4	4.7	15	17.6	34	40.0	32	37.6	3.106	.739

TABLE 3:10 CONTINUED

Risk Relievers	Most Suiting		Suiting		Less Suiting		Not Suiting		Mean	Variance
	No	Percent	No	Percent	No	Percent	No	Percent		
h) I shop around	26	30.6	32	37.6	23	27.1	4	4.7	2.059	.770
i) I want to buy the most advertised brand	-	-	9	10.6	24	28.2	52	61.2	3.506	.467
j) I want other people to shop	-	-	1	1.2	20	23.8	63	75.0	3.738	.220
k) I tell others about it	17	20.0	30	35.3	25	29.4	13	15.3	2.400	.957

Scource: Thesis (45)

The preceeding table shows that, utilizing a conformity score which shows the combined effect of the first two levels (most suiting and suiting), consumer protective way of risk reduction method that is, "I look for Turkish Standards Institution or Food Control Endorsement", ranked the first. It's followed by "I don't buy the same brand again", and finally by "I want to try" as preferred risk reduction methods.

(45) See: Questionnaire in the Appendix 1. The findings are related to questions 11 and 2.

3.2.2 Findings on Hypotheses:

In this chapter, findings on the eight hypotheses of the field study will be presented. (46)

3.2.2.1 Working Status and Risk Perception:

The hypothesis that working women perceive higher risks in food-shopping than non-working women was supported by the data with a X^2 value of 11.68, at one degree of freedom, with a significance level of .0006. The contingency coefficient value (c), was found to be .39 meaning a moderate association exists between the two variables.

73.7 per cent of non-working women were found to be low risk perceivers, where as 66 per cent of working women were high risk perceivers.

TABLE 3:11 RELATIONSHIP BETWEEN WORKİNG STATUS AND RİSK PERCEPTION

Variables	X^2 calculated	d.f	α	cv/cc
Working Status and Risk Perception	11.68	1	.0006	.39

Source: Thesis (47)

(46) For detailed information, computer outputs in Appendix 3 can be seen.

(47) d.f. is degrees of freedom
α is significance level
cv/cc is cramer's V or contingency coefficrent

3.2.2.2 Working Status and Time Loss:

The hypothesis that working women percerve higher time loss in food shopping than non-working women was supported. The risk reduction methods pertaining time saving support this hypotheses as seen from the below table.

TABLE 3:12 RELATIONSHIP BETWEEN WORKING STATUS AND TIME LOSS

Variables	X^2 calculated	d.f	α	cv/cc
a)Working status and store loyalty as a risk reduction method	7.78	3	.0509	.30
b)Working status and most advertised board as a risk reduction method	8.28	2	.0519	.31
c)Working status and someone else must do food shopping as a risk reduction method	9.40	2	.0091	.33

Source: Thesis

Working women preferred risk reduction methods of store loyalty, buy the most advertised brand and someone else must do food shopping as these methods helped them to save time in food shopping. Therefore, the working women must have exercised time loss to prefer these risk reduction methods. The three risk reduction methods that were mentioned above were preferred by 61.1 per cent, 80.5 percent, and 80.2 percent of the working women respectively.

3.2.2.3. Working Status and Money Loss:

The hypothesis that working women perceived higher money loss in food shopping than non-working women was not supported significantly by the data. At three degrees of freedom, the significance was found to be .5407.

TABLE 3:13 RELATIONSHIP BETWEEN MONEY LOSS AND WORKING STATUS

Variables	X^2 calculated	d.f	α	cv/cc
Money loss and working status	2.16	3	.5407	.15

Source: Thesis

The hypothesis that women who have shildren will exercise more hazard loss was supported by the data, with a X^2 10.89, three degrees of freedom, significance .0123 and a contingency cofficient value of .36.

It's seen that 72.9 per cent of women having children declared to exercise hazard loss.

Some other findings showing significant relationships between child ownership and risk reduction methods which also contribute to the support of this hypothesis can be seen in the table below:

TABLE 3:14 RELATIONSHIP BETWEEN CHILDOWNERSHIP AND HAZARD LOSS

Variables	X^2 calculated	d.f	α	cv/cc
a)Childownership and Hazard Loss	10.89	3	.0123	.36
b)Childownership and risk reduction method of TSI and Food Control Stamp	7.22	3	.0665	.29
c)Childownership and risk reduction method of Shopping around	6.79	3	.0700	.23
d)Childownership and risk reduction method of shopping around	8.70	3	.0336	.32
e)Childownership and I think I did something harmful to health	7.90	3	.0479	.31

Source: Thesis

Women who have children preferred Turkish Standards Institution or Food Control Stamp, buying the most expensive brand, shopping around by 89.4, 81.8 and 79.2 per cents respectively.

Moreover of those who had children 79.2 percent stated to exercise the feeling of " I think I did something harmful to health", which has a X^2 of 7.90 with three degrees of freedom, .0479 significance and a .31 contingency coefficient value.

3.2.2.5 Self Confidence and Ego Loss:

The hypothesis that non-self confident women exercise more ego-loss than the self-confident was supported by two findings.

Of non-self confident women 62.1 per cent revealed to exercise type of loss; "I lose confidence in the store". This relationship was supported by the data, with a X^2 value 11.72, three degrees of freedom, at a significance level of .0082 and a contingency coefficient value of .37.

Moreover, of non-self confident women 62.1 per cent revealed to utilize risk reduction method; "I try to get advice from others". This relationship was supported by the data with a X^2 value 9.57, three degrees of freedom, at a significance level of .0226 and a contingency coefficient value of .34.

TABLE 3:15 RELATIONSHIP BETWEEN EGO LOSS AND SELF CONFIDENCE

Variables	X^2 calculated	d.f	α	cv/cc
a)Self confidence and I lose confidence in brand	11.72	3	.0082	.37
b)Self confidence and risk reduction method of try to get advice from others	9.57	3	.0226	.34

Source: Thesis

3.2.2.6 Rankings of Risk Reduction Methods:

The hypothesis that consumers preferred consumer protective ways of risk reduction methods was confirmed by the data as the risk reduction method of, "I look for Turkish Standards Institution and Food Control Endorsement", was conformed by 81.0 per cent of the respondents.

3.2.2.7 Discrimination of Low Risk Perceivers From High Risk Perceivers by Risk Reduction Methods:

The purpose of the discriminant analysis was to test the seventh hypothesis of the study which was if the risk reduction methods that were utilized in this study, discriminated two groups of people high risk perceivers and low risk perceivers. In other words, perception of risk was the dependent variable and the risk reduction methods like, not to shop in the same store; not to buy the same brand; looking for Turkish Standards Institution or Food Control Endorsement, want to try; want money back; want to take information from others; want to buy the most advertised brand; want other people to shop; to tell to others about the item, were all independent variables of this discriminant analysis.

In the following table, statistical findings of the discriminant analysis will be presented:

TABLE 3:16 STATISTICS OF THE DISCRIMINANT FUNCTION

Statistics	Value
Eigen Value	.31401
Conanical Correlation	.489
Wilk's Lambda	.7610
Chi-Square	20.345
Degrees of Freedom	11
Significance	0.041
Centroid of Group 1:Low Risk Perceivers	-0.53582
Centroid of Group 2:High Risk Perceivers	0.44056
Percentage of Correct Classification	73.71

Source: Thesis

As seen from the above table, risk reduction methods can discriminate low risk perceivers from high risk perceivers at a significant level. Group centroids indicate that low risk perceivers have higher discriminant scores than the high risk perceivers.

Using an acceptance limit of .35 for the standardized coefficients, the risk reduction method of not to shop in the same store (coefficent:.72960) and buying the most adver tised brand (coefficent:.37604) discriminated low risk perceivers better than risk high perceivers. Among the two risk reduction methods the first is approximately twice in importance in differentiating among low and high risk perceivers. On the other hand, risk reduction methods of to buy the most advertised brand and to shop around helped to discriminate high risk perceivers better. Moreover, the first of these risk reduction methods is approximately twice in importance in differentiating the two groups.

The whole discriminant function's correct classifying percentage is 73.71 and the proportion test applied indicates that this classification is 99 per cent significant, that is discriminant function does a good job in classifying the existing sample.
(z value 4.27, $p<.05$)

It's seen in the following table, 3:17 that risk reduction methods which describe low risk perceives better were not to shop in the same store, not to buy the same brand, want to try, want money back, want to take information from others, want to buy the most advertised brand, want others to shop, and to tell others about the item. For high risk perceives look for TSE or food control endorsement, want to buy the most expensive brand and to shop around scored higher indicating that they described better.

The below table shows the results of the univariate analysis:

TABLE 3:17 IMPORTANCE OF PREDICTOR VARIABLES (UNIVARIATE ANALYSIS)

Variables	Low Risk Perceivers	High Risk Perceivers	Wilk's Lambda	Fcalculated
Not to shop in the same store	2.9459	2.3333	.8991	8.9793
Not to buy the same brand	1.8649	1.5778	.9716	2.3364
Look for TSE or food control endorsement	1.7838	1.9778	.9894	.8580
Want to try	2.3514	2.2000	.9932	.5502
Want money back	2.9189	2.7333	.9933	.5403
Want to take information from others	2.5135	2.3778	.9936	.5176
Want to buy the most expensive brand	2.9459	3.2667	.9656	2.8469
To shop around	2.0000	2.0889	.9975	.2017
Want to buy the most advertised brand	3.6216	3.4667	.9866	1.0864
Want others to shop	3.7838	3.6889	.9899	.8164
Want to tell others about the item	2.4865	2.3333	.9937	.5064

Source: Thesis

3.2.2.8 Discrimination of Low Risk Perceivers From High Risk Perceivers by Demographics and Psychographics:

The purpose of this discriminant analysis was to test the last hypothesis of the study which was if the demographic and psychographic variables discriminated two groups of people: high risk perceivers and low risk perceivers. In other words, perception of risk was the dependent variable and the demographics of age, marital status, education, family income, working status, child ownership and psychographics of contemporary/traditionality and general self confidence were all independent variables of this discriminant analysis.

In the following table, statistical findings of the discriminant analysis will be presented:

TABLE 3:18 STATISTICS OF THE DISCRIMINANT FUNCTION

Statistics	Value
Eigen Value	.21248
Conanical Correlation	.420
Wilk's Lambda	.8235
Chi-Square	15.338
Degrees of Freedom	8
Significance	0.053
Centroid of Group 1:Low Risk Perceivers	.46443
Centroid of Group 2:High Risk Perceivers	-.37549
Percentage of Correct Classification	69.41

Source: Thesis

As seen from the above table, demographic and psychographic variables can discriminate low risk perceivers from high risk perceivers at a significant level. Group centroids indicate that high risk perceivers have higher discriminant scores than the low risk perceivers.

Using an acceptance limit of .35 for the standardized coefficients, the demographic of working status (coefficient:.97147) and childownership (coefficient:.35820) discriminated low risk perceivers from high risk perceivers. The first demographic discriminated high risk perceivers better than low risk perceivers and the latter discriminated low risk perceivers better than high risk perceivers. Working status was approximately triple in importance in differentiating the two groups.

The whole discriminant function's correct classifying percentage is 69.41 and the proportion test applied indicates that this classification is 99 per cent significant, that is discriminant function does a good job in classifying the existing sample.(z value;3.57; $p<.05$)

The below table shows the results of the univariate analysis:

TABLE 3:19 IMPORTANCE OF PREDICTOR VARIABLES (UNIVARIATE ANALYSIS)

Variables	Low Risk Perceivers	High Risk Perceivers	Wilk's Lambda	Fcalculated
Age	3.1579	2.8936	.9888	.9404
Marital Status	1.6053	1.6596	.9969	.2620
Education Level	4.1053	4.4681	.9757	2.0630
Family Income	1.9737	2.0426	.9978	.1843
Working Status	1.2632	1.6596	.8444	15.2921
Child Ownership	1.4211	1.4468	.9993	.0554
Contemporary/Traditional	1.3421	1.3404	1.0000	.0002
General Self Confidence	1.3158	1.3830	.9951	.4076

Source: Thesis

It's seen in the table 3:19 that among the demographic and psychographic variables which describe low risk perceivers better was age. All the other variables like marital status, education level, family income, working status, childownership and general self confidence was describing the high risk perceives group where as contemporary/traditionalty didn't have a discriminating power at all.

3.2.3 Other Findings:

In this part of this chapter, finding unrelated to hypothesis, nevertheless have some statistical and explanatory value will be discussed. These findings will be either related to level of perceived risk, kinds of losses and kinds of risk reduction methods.

3.2.3.1 Findings Related to the Level of Risk

TABLE 3:20 LEVEL OF RISK AND SIGNIFICANT FINDINGS

Relationships	X^2	d.f	cc/cv	a
Level of risk by "who must do food shopping"	12.39	4	.38	.0147
Level of risk by "Age"	14.22	5	.41	.0143
Level of risk by "hesitancy faced in buying meat, fish, poultry	9.82	3	.34	.0201

Source: Thesis

Of low risk perceivers, 75.7 percent declared mother, 10.8 percent mother and father together, 2.7 percent each member of the family, 10.8 per cent any one (not cared) must do food shopping at home. Of high risk perceives 44.7 percent declared mother, 27.7 mother and father together, 14.9 percent each member of the family, 6.4 percent any one must do food shopping at home.

Of low risk perceivers, 18.4 per cent were members of younger age, 34.2 percent medium age and 47.4 percent older age groups, whereas of high risk perceivers 6.4 percent were younger age, 61.6 per cent medium age 32.0 percent older age groups.

Of low risk perceivers, 10.5 percent declared to hesitate highly 57.9 per cent exercised medium hesitation, and 31.6 percent exercised no hesitation in the stage of buying meat, fish and poultry products. Of high risk perceivers the hesitation levels such as "high", "medium" and "not at all", were exercised by 10.6, 83.0, 6.4 percents of the respondents respectively.

3.2.3.2 Findings Related to Kinds of Losses:

The following table show the statistics about the relationships between demographics/psychographics and comments on different kinds of losses.

TABLE 3:21 KINDS OF RISK AND SIGNIFICANT FINDINGS

Relationships	X^2	d.f	cc/cv	a
Having children and lose confidence in brand	8.37	3	.31	.0389
Having children and feel dump	9.25	3	.33	.0262
Having children and feel upset	6.69	3	.29	.0728
Having children and alternative time loss	8.63	3	.31	.0317
Having children and feel sorry to be deceived	11.95	3	.38	.0076
Contemporary/Traditional and alternative time loss	9.00	3	.33	.0293
Self confidence and think to risk family health	7.73	3	.30	.0519

Source: Thesis

When the food purchase is a failure, of those respondents who had children, 97.9 percent declared conformity with the comment that they "lose confidence in the brand", 78.3 percent agree that they "feel dump", 62.3 per cent agree "to feel upset", 67.9 percent agree that they think "they could do any other thing in the time they spent", and 65.6 percent agree that "they feel sorry for being deceived."

Of the contemporary women respondents 66.1 percent declared that "they could do other things in the time they spent during food shopping", where as of self-confident women 75.5 percent declare that "they wouldn't think that they risked the family health".

3.2.3.3 Findings Related to Risk Reduction Methods:

The only finding which is related to risk reduction method and self confidence variable is shown in the below table:

TABLE 3:22 RISK REDUCTION AND SIGNIFICANT FINDINGS

Type of relationships	X^2	d.f	cc/cv	a
Self confidence and risk reduction method of want others to shop	8.37	3	.31	.0389

Source: Thesis

73.9 percent of the non-self confident women responded that they would like other people to shop as a risk reduction method for the risks they perceive in food shopping.

3.2.4 Associational/Directional Findings:

In this section, the associations which are not found statistically significant, however after the proportion-test applied indicated to have value in the direction of some relationships will be listed. The associations are related to risk reduction methods and variables such as marital status, income, being contemporary/ traditional and self-confidence.

a) 64.3 percent of the married women didn't want other people to do food shopping.
b) 63.1 percent of the low income group members declared that they would like advise.
c) 64.7 percent of the low income group members declared that they wouldn't buy the most expensive model.
d) 67.0 percent of the low income group member declared that they would shop around.
e) 66.8 percent of the low income group members declared that they wouldn't buy the most advertised brand.
f) 64.7 percent of the contemporary women declared that they wouldn't buy the most advertised brand.
g) 64.4 percent of the contemporary women declared that they wouldn't want other people to shop.
h) 60.7 percent of the non-self confident women declared that they would like to take information from others.

CHAPTER FOUR

IV. CONCLUSIONS and IMPLICATIONS:

This chapter will be discussed in two main sections;

(a) Interpretation of the findings: Conclusion
(b) Importance and Implications of the study.

4.1 Interpretation of the Findings: Conclusion:

In this study which is applied on women subjects, many highlights of their food shopping behaviour are obtained.

The study was conducted on 85 female respondents via data collection procedure of questionnaire. The questionnaire included questions that probed into food shopping behavior, kinds of risks perceived in food shopping and relevant risk reduction methods. The filled-up questionnaires were analysed by using computer programs like cross-tabulations, frequency distributions and discriminant analysis.

In the following paragraphs, the findings of the study will be interpreted and some conclusions will be reached.

The shopping role is perceived to be a female phenomenon and is rarely shared with the husband and other members of the family. The mother actually shops and is expected to perform it. Even the women who declared a dislike towards food shopping didn't want to share the responsibility of food shopping. This revealed that women wanted to keep their maternity role as a strong decision maker within the family.

In this study it's found that supermarkets and specialty outlets are favored places for food shopping; where as cooperatives and Municipality Shopping Places (Belediye Tanzim) aren't. This might be due to the fact that the number of the latter are few in number, therefore they cannot meet the needs of large gorups and also they present a poor image in the eyes of the public. They are also known to sell rather cheap items which is not an attractive characteristics. Supermarkets are increasing in number and they can provide customers with a variety of products.

Another finding is the hesitation in buying ready food items and canned food is high. This finding can be explained by the fact that they are potential threats to decline the maternal role of women in the family. Moreover the fact that cans are packaged-women can't see inside-increases the ambiguity they face, thus increase their hesitancy level.

The frequency of food shopping is high in Turkey. Food items are offered to sale not being processed like in USA or in European countries. Moreover people are accustomed to eating fresh food. These are the underlying facts why women did food shopping more than once a week.

Food is a product class which can be said to hold latent risk. Of the two components of risk, consequences component weighs more than the uncertainty component for the risks encountered in food shopping. Food items are generally small and information search and process is relatively easy compared to specialty or shopping goods. Still we may classify losses that will result from unsatisfactory shopping experiences as time, money, ego and hazard loss.

The ranking of the types of losses according to their comformity scores by the respondents indicate that seven of the risk types are agreed by more than 65 percent of the respondents.

TABLE IV: 1 RANKINGS OF LOSSES BY CONFORMITY SCORES

Comments on Losses	%
I lose confidence in the brand	96.4
I could buy better things with the amount at stake	91.8
I spent my money for something worthless	88.3
I feel upset	81.2
I think I did something harmful for health	76.2
I think I spend my time for a worthless thing	71.8
I lose confidence in the store	68.2
I would to better things in the time I spent	65.4

Source: Thesis

For food items, its observed that brand loyalty can be easily detoriated when the women buy an unfresh, corrupt or useless item. It can be discussed that past experiences play a great role in the formation of brand loyalty.

Money loss is another type of loss faced even though the amount at stake is not of a large size. The declining purchasing power can be an explanatory issue for this fact.

For ego loss comments "I feel upset", and "I think I'm deceived", were more conformed by the women than "I feel dump". The latter is a harsh comment for the respondents and is conformed only by 27 percent of the whole sample. THis indicates how women try to conceal how they felt when they face an unsatisfactory shopping experiment.

Hazard loss is expressed by the comment "I think I did something harmful to health". In a county where red paint is mixed to tomatopaste and plastic beans are sold as lantills, consumers are expected to be sensitive to health related risks. Therefore it's also self-explanatory why the women preferred consumer protective ways of risk reduction methods.

People reported to be aware of time loss when they have alternatives to do in the time they spent.

It was found that working women perceived higher risk than the non-working women. As women's role are changing in the society, since they have began to participate in the workforce, changes are also expected in their food shopping behaviour and decision making patterns. Women who work can be considered to combine all the effects of higher education and income level, being contemporary and self confident, thus create a new group of females.

As working women are under constant time pressure, it was expected that they will exercise time loss. It was found that women preferred time saving methods of risk reduction. They would try to minimize time consumed by visiting the same store when they did food shopping, buying the most advertised brand, that is a brand they have already been informed about and will not consume time in searching, and want other people to shop for her not to spend any time at all.

The sample of working women which the data is gathered from has indicated that they didn't exercise money loss. This is logical because working women belong to higher income level and food shopping represents small amount at stakes compared to the total of the earnings. During the interviews the working women expressed that in order to buy something worthy, they are ready to pay higher prices.

As to the finding related to hazard loss, the women who owned children have maternity role and are too much concerned about the family health, especially well being of their children. This is also related to Turkish culture. This issue also influences the type of risk reduction methods preferred. The women who have children would look for Turkish Standards Institution or Food Control Endorsement which will be the guarantee of not giving harm to their children.

In a similar study performed in USA, buying the most expensive model (48) is the least favored method for all types of risk. But in Turkey, there is a belief about a close correlation of price and quality. There's even proverbs in the culture telling that cheap items have no value. Therefore women with children try to maximize quality, and minimize hazardous consequences by buying the most expensive products.

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(48) Roselius, T., "Consumer's Ranking of Risk Reduction Methods", Journal of Marketing, Vol. 25 pp.56-61, January 1971.

Women with children also shop around to find the best choice for their family thinking that among a wide variety of goods they will find a best chorce which will not be harmful to health.

An association of self confidence and ego loss was observed in the study. Non self confident women declared that they will lose confidence in the store when the food item they bought turned out be useless. The type of self confidence studred is general self confidence not specific self confidence and the type of loss exercised belongs to ego hurting type.

Another finding is that women who don't have general self confidence want to have information from others, that is rely on word-of -mounth communication a lot, which will help them to strengthen their confidence in food shopping.

The issue of consumer protection is getting more and more publicity in Turkey. One of the findings of the study is related to this issue. In the overall sample Turkish Standards Institution or Food Control Endorsement was the most favored risk reduction method. This explains the fact that such controls are not sufficient for food items in Turkey, people are face to face with food poisoning and they want to be protected by law. The second favored risk reduction was that the consumer wants to try the food item.

When they taste it, consumers believe that they have made the right choice. Prior trials increase the confidence of the individual in the brand. This also indicates that the packaged goods are less favored as food items, as they limit the chance of trying. The third ranking among the risk reduction methods was not buying the same brand again. This has implications in two ways: When the consumer finds out that the food item is corrupt, stale or useless, the individual can change his brand. On the other hand, he will replace it by the brand that he has tried before; due to a previous finding, the second ranking among risk reduction methods. The fourth ranking risk reduction method was to shop around. As explained above, shopping around presents a variety of choices to the consumer among which she's expected to select the best one.

Among the Risk Reduction Methods, not to shop in the same store has been found to be the strongest to discriminating high and low risk perceivers. Moreover this method of risk reduction defines low risk perceivers better than the high risk perceivers. That is low risk perceivers prefer not to shop in the same outlet, that is they donot have store loyalty. On the other hand, high risk perceivers have store loyalty. This is important because the curicial factor to discriminate between the high and low level risk perceivers is not the brand but the outlet where it's sold. High risk perceivers expect worse consequences if they change their outlets than they stick to their present outlet. For a low risk perceiver this decision is quicker and easier to make.

For the demographics, only working status is found to be significant in defining high risk perceivers and discriminating high and low level risk perceivers. As mentioned before working role combines the effects of income, education and social roles and explains high risk perception better.

Within the family, its obvious that mother is seen as the major food shopper and only in cases when self-confidence is low and time consumption is to be minimized, women would like other people do food shopping. This explains the fact that mother likes the role of food shopper and even food-shopping doesn't create the highest level of liking, they don't let their decision maker strength to decline.

High risk percivers were to a large extend, medium aged women who had younger children and were of working status.

Although meat, fish and poultry was not sold in packages in Turkey, that is the customer has a chance to observe, they are the food items in which so many deceit have been made and public opinion has been frequently raised, even on. Therefore high risk perceivers were quite cautiouns when they were buying these food items.

Child owners after hazard loss, indicated to exercise ego loss, too. The ego losses were defined by feeling upset, feeling dump and lose confidence in brand; weakening of brand loyalty. This can be the interaction of self-confidence and childownership or women find it easy to declare the severe types of ego loss, "I fell dump", and "I fell upset".

Childowners and contemporary women express that they, to some extent, exercise time loss in terms of the alternative to do in the period of time spent. The always have other things to do, childowners as they dedicate their time mostly to their children and contemporary women have social roles outside the house.

Also as association between non-self-confidence and hazard loss, "think to risk family's health" is found. Self-confidence women donot accept the comment that their family of food-shopping risks the family's health.

All of these above findings are expected to have implications on marketers, acedemicians and the readers. The implications and recommendations will be discussed in the following section.

4.2. Importance and Implications of the Study:

Perception of risk and relevant methods to reduce it is one of the curicial subjects of consumer behaviour. When the marketer has information on these and apply the useful methods, then unquestionably he's going to operate in an environment where no uncertainties and hesitation are present thus increase the potential of sales. Knowing the level and kind of risk perceived, the marketers can make their decisions about product, price promotion and place. This particular study is expected to have contributions in these areas and also provide the necessary base for future research because it's one of the very few similar studies conducted on Turkish sample and has a recency effect.

In complience with the findings of the study working women perceive higher risks than the non-working women. It can be said that perception of risk is a learnt phenomenon. As women are exposed to outside information more when they work, it's clear that their perception of risk will increase. In a society where working role of women is rapidly becoming dominant, the marketers must give a special emphasis in their decisions and apply some methods to reduce risk in order to create consumer satisfaction which becomes an important guarantee for future sales.

In food products, consumers want an official protection. They expressed this by their desire to see food control endorsement or Turkish Standards Institution stamp. This risk reduction method was highly favored by the respondents who experienced hazard loss and even more by all respondents. Therefore such stamps will increase the perceived quality of the product within a variety of choices.

Women who exercise ego loss who were primarily non-self confident respondents declared that information gathering from others was a suitable risk reduction method for themselves.

In addition information on packages or point of purchase displays with information for non-packaged items may be useful as sources of information.

Products like meat, poultry and fish are subject to hesitancy in shopping. Therefore such food items require more care from the marketers. As the marketer gets information that sales decline occurs due to hesitation faced in buying these items, he can apply extensive strategies to increase the sales.

For pricing decisions this study will assist the marketer in the sense that for some market segments, high prices are relevant for the buyer. Women who have children and who reported to exercise hazard loss chose to buy the must expensive model as a risk reduction method. This indicates the consumers' perception that quality is related to price; the higher the price is the stronger the belief that the quality is higher.

The study provides some insights for place decision too. Working women preferred store loyalty to reduce perceived time loss. Moreover as their food shopping goal is to maximize the satisfaction within a limited time they prefer high quality outlets although they're expensive. Supermarkets which are designed to provide quicker service will be appreciated by working women and thus increase store loyalty.

Women with children declared they shopped around to reduce risk. Therefore to appeal to this market segment, intensive distribution of food products to several outlets will be a good placing decision.

Non-self confident women who had higher ego loss were the self-confident ones, declared that they lost confidence in the store when the food item they bought turned out to be unfresh, corrupt or useles. Therefore, improvement of store image will be an easier strategy to adopt than increasing self-confidence of women for the marketer to apply.

The marketer can apply two strategies: to convey store image in an effective but free from the product line or to match the store image with the highest quality product which have a minimal probability of not satisfying the customer.

The study aims to help the promotional activities of the marketers. This is an important cost center for the marketer which proves the value of the right choice. For the above mentioned product, and place decisions, messages can be transfered to customers by placing cartoons, on-the-wall advertisements in the directions explained.

But if the market segment is contemporary women, too much advertising causes a reaction which may result in declining sales. The underlying proof is the finding of reluctance of contemporary women towards the risk reduction method of buying the most advertised brand.

Moreover contemporary women also declared to exercise the kind of loss, "I would do other things in the time I spent". Advertising massages of decreasing this time of loss will be effective for the mentioned target market. For example, a modern dressed women who is engaged in outdoor activities might convey the message of the quick service and high quality outlet she's shopping from.

The study also indicated that ego loss was exercised as the women responded that they will not buy the same brand once again. That's for one unsatisfactory experience they will not establish brand loyalty. Promotional activities, which has a female shopper as the central image reporting the frequency of her buying that particular brand will be effective.

It's also indicated by our sample that women are involved in food shopping more than men are. Therefore its important for the promoter/advertiser to choose a female subject rather than a male in order to guarantee a higher level of involvement with the message.

Information supply in the form of newspaper reports, TV programs, advertisements and word-of-mounth communications will be effective ways of promote the findings of the study indicates that these ways are going to work for non-self confident and low-income level people. Mass communications campaigns may be adjusted accordingly.

One implication of the study concerns with the measurement of self confidence and being contemporary/traditional. There are doubts about their reliability, such as the women didn't respond openly to these questions or answered in the direction they would like to be. For future studies, the research must bear in mind that personal questions might have biases resulting from the respondents' concerns for privacy.

Moreover there are some comments containing repelling words in their composition. They are comments like "I feel dump", (kendimi aptal hissederim); "I tell others about the item" (başkalarına kötülerim); and the word "risk" (sakınca) mainly. Turkish women do not want to confess that they have been dump because it's going to create cognitive dissonance in them. For the same reason "I tell others about the item", is found as a repelling comment. And the word "risk" is not found to be a good comment by the respondents. They put it forward as "what risks can it be;" highlighting their dislike about the comment. Future researcher must be very careful on this wording issue.

Besides the above implications, the study proposes some areas for future studies to probe.

This study was carried on a particular sample. The same type of a study can be conducted with other samples in which respondents are selected randomly. Thus the problem of referring to a particular sample is overcome and such stratified pieces of works will be more helpful for marketers in decision making.

The aim of this particular study is to find out types of risks that are inherent in food shopping. The product class has proved out to be very general. Each sub group of product class, due to the fact that they are sold packaged or unpackaged and also due to their characteristics, posses different kinds of risks.

For instance kind of risk and risk reduction method differs for macoroni and canned food although both are packaged food items. Therefore for some product classes risk reduction methods will be more complicated than expected. This particular area of interest is not included in the scope of this study which might be the scope of a future study.

Another area of research which is not included in the context of this study also proposes another area of future study. The matching of which risk reduction methods are remedies for what kinds of losses are not tested by this particular survey. In famous Roselius article (49) a ranking of risk reduction methods were outlined for each type of loss. The research can include other relevant risk reduction methods which are not included in this particular study. Cents off policies, displays, other information gathering methods such as reading information on packages and paying attention to commercials can be other types of risk reduction strategies.

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(49) Roselius, T., "Consumer's Ranking of Risk Reduction Methods", Journal of Marketing, Vol. 25 pp.56-61, January 1971.

One other area of the study is related to brand loyalty which has an important correlation with risk perception. In this study brand loyalty is tested implicitly through one risk reduction method, "I won't buy the same brand again". One can study this concept more explicitly, such as probing into if brand loyalty already existed before the food shopping situation and in what direction it will change after an unsatisfactory food shopping experiment.

Another suggestion for future studies will be a design which will take multidimensional view of women's world and their various roles into consideration, that is involve life-styles other than certain demographics and pyschographics which are unidimensional. This study is expected to be more explanatory for food shopping behaviour.

This study has included a combination of two overlapping subjects: Women's shopping behaviour and perception of risk. As it's conducted in Turkey where a few studies have been made on this field clearly indicates it's contribution to Consumer Behaviour studies in Turkey. Regardless of its shortcomings it has two important contributions;

(a) To the literature, being the most recent study carried in Turkey where hardly any literature exists; and

(b) To the marketers, to aid them in their decisions like price, product, place and promotion.

APPENDICES

APPENDIX 1

QUESTIONNAIRE

. Aşağıdaki sorular yiyecek alışverişindeki durumunuzu irdelemekte-
ir.Uygun şıkkı işaretleyerek veya cevabı verilen boşluğa yazarak
anıtlayınız.

. Evde yiyecek alışverişini kim yapar?.....
. Sizce evde yiyecek alışverişini kim yapmalıdır?.....

. Aşağıdakilerden hangisi yiyecek alışverişindeki durumunuzu tanım-
lar?
Alışveriş yapmaktan büyük zevk alırım ( )
Alışveriş yapmaktan hoşlanırım ( )
Alışveriş yapmaktan hoşlanmam ( )
Ancak mecbur olunca alışveriş yaparım ( )
Diger (belirtiniz).....

. Yiyecek alışverişinizi ne sıklıkta yaparsınız?
Haftada birden fazla ( )
Haftada bir kez ( )
İki haftada bir kez ( )
Diğer (belirtiniz).....

. Aşağıda belirtilen yerlerden ne sıklıkta yiyecek alışverişi yapar-
sınız?

	Herzaman	Genellikle	Bazan	Hiçbirzaman
Bakkaldan	( )	( )	( )	( )
Süpermarketten	( )	( )	( )	( )
Pazardan	( )	( )	( )	( )
Kooperatiflerden	( )	( )	( )	( )
Belediye Tanzimden	( )	( )	( )	( )
Sadece tek tür yiyecek satan yerlerden(balıkçı,kasap,şarküteri gibi)	( )	( )	( )	( )
Diğer(belirtiniz)			.....	

. Aşağıdaki yiyecek maddelerini satın alırken ne hissedersiniz?

	Herzaman tereddüt ederim.	Genellikle tereddüt ederim.	Bazan tereddüt ederim.	Hiçbirzaman tereddüt etmem.
Et,balık,tavuk	( )	( )	( )	( )
Konserve	( )	( )	( )	( )
Hazır yemek	( )	( )	( )	( )
Süt ve sütlü gıda	( )	( )	( )	( )
Un ve unlu maddeler	( )	( )	( )	( )
Yaş meyve ve sebze	( )	( )	( )	( )

. Şimdiye kadar hiç kullanmadığınız bir yiyecek maddesi markasının
şu anda kullanmakta olduğunuz marka kadar iyi olabileceğine inan
mısınız?Başka bir deyimle,bu markanın şimdi kullanmakta olduğunuz
kıyasla
Herzaman ( )
Genellikle ( )
Bazan ( )
Hiçbirzaman ( ) eşit olabileceğini söyleyebilir misiniz?

. Daha önce kullanmadığınız bir yiyecek maddesi markasını denemekt
mekinçalar.

emi denediğiniz bir yiyecek maddesi markasının şu anda kullandığı-
ız kadar iyi olması sizce ne kadar önemlidir?
nemli değil ( ) Önemli ( )
iraz önemli ( ) Çok önemli ( )

atın aldığınız yiyecek maddesinin bozuk,bayat,işe yaramaz çıkması
linde aşağıdaki cümlelerin sizin görüşlerinizi ne derece yansıt-
ığını belirtiniz.

	Tamamen aynı fikirdeyim.	Aynı fikir - deyim.	Karşıt fikir- deyim.	Tamamen aynı fikir- deyim.
şuna zaman harcadığımı şünürüm.	( )	( )	( )	( )
rkaya olan güvenimi ybederim.	( )	( )	( )	( )
ndimi aptal hissederim.	( )	( )	( )	( )
ramı boşa harcadığımı şünürüm.	( )	( )	( )	( )
ğlığa zararlı bir şey ptığımı düşünürüm.	( )	( )	( )	( )
k bozulurum.	( )	( )	( )	( )
alışverişte harcadığım nanda başka bir iş yapa- leceğimi düşünürüm.	( )	( )	( )	( )
nı parayla daha iyi şey- r alabileceğimi düşünürüm.	( )	( )	( )	( )
ndırıldığımı hissederek ülürüm.	( )	( )	( )	( )
kkana olan güvenimi kay- derim.	( )	( )	( )	( )
nisini satın almam zamanımı acak diye düşünürüm.	( )	( )	( )	( )
r daha alışverişi başkası pmalı diye düşünürüm.	( )	( )	( )	( )
lemin sağlığı ile oynadığımı şünürüm.	( )	( )	( )	( )

ğer(belirtiniz).....

ir kez daha yukarıda belirtilenleri hissetmemek için aşağıdaki
etodları kullanmak size ne derece uygun gelir?

	Çokuygun	Uygun	Azuygun	Uygunde
dükkandan birdaha alışveriş etmem	( )	( )	( )	( )
markayı birdaha satın almam.....	( )	( )	( )	( )
yada Gıda Kontrolu damgasını ararım....	( )	( )	( )	( )
mek (tatmak) isterim.....	( )	( )	( )	( )
amı geriye isterim.....	( )	( )	( )	( )
kalarından tavsiye almak isterim.....	( )	( )	( )	( )
pahalı markayı almaya gayret gösteririm.	( )	( )	( )	( )
itli yerleri gezip satın alırım.....	( )	( )	( )	( )
k reklâmı yapanı alırım.....	( )	( )	( )	( )
başkası alışveriş yapsın isterim.....	( )	( )	( )	( )
kalarına kötülerim,.....	( )	( )	( )	( )

1. Yaş grubunuzu belirtiniz.
   20-ve altı ( )
   21-30 ( )
   31-40 ( )
   41-50 ( )
   51-60 ( )
   61-ve üstü ( )

2.Medeni halinizi belirtiniz.
   Bekar ( )
   Evli ( )
   Boşanmış/Dul( )

3.Tahsil derecenizi belirtiniz.
Okuryazar ( ) Lise ( )
   İlkokul ( ) Yüksekokul/Üniversite( )
   Ortaokul( ) Lisansüstü ( )

4.Net aylık koplam aile gelirinizi belirtiniz.
   50 bin ve daha az ( ) 151bin-200bin ( )
   51bin-100 bin ( ) 201bin-250bin ( )
   101bin-150bin ( ) 251bin-300bin ( )
   300bin ve üstü ( )

5.Ev dışında çalışma durumunu belirtiniz.
   Çalışmıyorum. ( )
   Kısmi zaman çalışıyorum. ( )
   Tam zamanlı çalışıyorum. ( )

6. Çocuğunuz var mı? Evet ( ) Hayır( )
   Varsa sayısını belirtiniz. .....

7. Aşağıdaki fikirlere katılma derecenize uygun olan şıkkı işaretley

	Tamamen katılıyorum.	Katılıyorum	Katılmıyorum.	Tamamen katılmıyorum.
- Bir hanım, erkeklerin gittiği tüm yerlere gidip onlar kadar hürriyet sahibi olabilir.	( )	( )	( )	( )
- Evdışında çalışmak bir hanım için önemli bir tatmin kaynağıdır.	( )	( )	( )	( )
- Hanımlar için en uygun meslek annelliktir.	( )	( )	( )	( )
- Hanım olmak, kişiyi bir meslekte çok başarılı olmak için yetersiz kılmaktadır.	( )	( )	( )	( )
- Eşimin fikirleri, benim çalışıp çalışmama kararım için çok önemlidir.	( )	( )	( )	( )

Aşağıdaki soruları, uygun olan şıkkın altına bir (x) işareti koyarak cevaplandırınız.

	Hayır	Bazen	Çok zaman	Herzaman
- Genellikle sakin,kendime hakim ve soğuk kanlıyım.	( )	( )	( )	( )
- Önemsiz şeyler hakkında endişelenirim.	( )	( )	( )	( )
- Genellikle kendimi emni-	( )	( )	( )	( )

APPENDIX 2

SELF EVALUATION TEST

ve Ayhan LECOMTE tarafından Türkçeye adapte edilmiştir. (x)

STAI FORM TX - I

İsim * Cinsiyet Yaş Meslek Tarih

YÖNERGE : Aşağıda kişilerin kendilerine ait duygularını anlatmada kul dıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyun, sonra da nel olarak nasıl hissetiğinizi, ifadelerin sağ tarafındaki parantezle uygun olanını karalamak suretiyle belirtin. Doğru ya da yanlış cevap y tur. Herhangi bir ifadenin üzerinde fazla zaman sarfetmeksizin genel rak nasıl hissetiğinizi gösteren cevabı işaretleyin.

	Hayır	bazen	çok zaman	her za
21. Genellikle keyfim yerindedir	(1)	(2)	(3)	(4)
22. Genellikle çabuk yorulurum	(1)	(2)	(3)	(4)
23. Genellikle kolay ağlarım	(1)	(2)	(3)	(4)
24. Başkaları kadar mutlu olmak isterim	(1)	(2)	(3)	(4)
25. Çabuk karar veremediğim için fırsatları kaçırırım.	(1)	(2)	(3)	(4)
26. Kendimi dinlenmiş hissederim	(1)	(2)	(3)	(4)
27. Genellikle sakın, kendime hakim ve soğukkanlıyım	(1)	(2)	(3)	(4)
28. Güçlüklerin, yenemiyeceğim kadar biriktiğini hissedorim.	(1)	(2)	(3)	(4)
29. Önemsiz şeyler hakkında endişelenirim.	(1)	(2)	(3)	(4)
30. Genellikle mutluyum	(1)	(2)	(3)	(4)
31. Herşeyi ciddiye alır ve etkilenirim	(1)	(2)	(3)	(4)
32. Genellikle kendime güvenim yoktur	(1)	(2)	(3)	(4)
33. Genellikle kendimi emniyette hissederim.	(1)	(2)	(3)	(4)
34. Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım.	(1)	(2)	(3)	(4)
35. Genellikle kendimi hüzünlü hissederim.	(1)	(2)	(3)	(4)
36. Genellikle hayatımdan memnunum	(1)	(2)	(3)	(4)
37. Olur olmaz düşünceler beni rahatsız eder.	(1)	(2)	(3)	(4)
38. Hayal kırıklıklarını öylesine ciddiye alırım ki, hiç unutamam	(1)	(2)	(3)	(4)
39. Aklı başında ve kararlı bir insanım	(1)	(2)	(3)	(4)
40. Son zamanlarda kafama takılan konular beni tedirgin eder	(1)	(2)	(3)	(4)

APPENDIX 3

KEY TO APPENDIX 3:

The codings used in the study are presented in this section to provide practical usage to the reader:

VA: Level of Perception of Risk

1. Low 2. High

V2: Who should do food shopping

1. Mother 2. Father 3. Mother and Father
4. Each member of family 5. Don't care/Anybody

V6A: Hesitation in buying Meat/Poultry/Fish

1. Always 2. Generally 3. Sometimes 4. Never

For all the following, the categories will be:

1. Totally Agree 2. Agree 3. Disagree 4. Totally Disagree

VM : Money Loss.
VT : Time Loss.
VH : Hazard Loss.
V10B: Loss Type-I lose confidence in Brand.
V10C: Loss Type-I feel dump.
V10E: Loss Type-I think I did something harmful to health.
V10F: Loss Type-I feel upset.
V10G: Loss Type-I think I could do other things in the time I spent.

V10J: Loss Type-I fell sorry I'm deceived.
V10N: Loss Type-I think someone else must do food shopping.
V10P: Loss Type-I think I played with the family's health.
V11A: Risk Reduction Method-I don't shop in the same outlet.
V11C: Risk Reduction Method-I look for TSI and Food Control stamp.
V11F: Risk Reduction Method-I want advise from others.
V11G: Risk Reduction Method-I buy the most expensive brand.
V11H: Risk Reduction Method-I shop around.
V11J: Risk Reduction Method-I buy the most adverhised brand.
V11K: Risk Reduction Method-I want others to shop.

V12 : Age Group
1. 20 and lower 2. 21-30 3. 31-40 4. 41-50
5. 51-60 6. Over 60

V15 : Marital Status
1. Not Married 2. Married

V16 : Working Status
1. No 2. Yes

V17 : Childownership
1. No 2. Yes

V18 : Contemporary
1. No 2. Yes

V19 : Self Confidence
1. No 2. Yes

WOMEN SHOP RISK

07 JUN 84

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * *
VA BY V16
* *

VA	COUNT / ROW PCT / COL PCT / TOT PCT	V16 1.	V16 2.	ROW TOTAL
1.	COUNT	28	10	38
	ROW PCT	73.7	26.3	44.7
	COL PCT	63.6	24.4	
	TOT PCT	32.9	11.8	
2.	COUNT	16	31	47
	ROW PCT	34.0	66.0	55.3
	COL PCT	36.4	75.6	
	TOT PCT	18.8	36.5	
COLUMN TOTAL		44	41	85
		51.8	48.2	100.0

CORRECTED CHI SQUARE = 11.68415 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .0006
PHI = .39443
CONTINGENCY COEFFICIENT = .36692
LAMBDA (ASYMMETRIC) = .31579 WITH VA DEPENDENT. = .36585 WITH V16 DE
LAMBDA (SYMMETRIC) = .34177
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .11673 WITH VA DEPENDENT. = .1158
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .11631
KENDALL'S TAU B = .39443 SIGNIFICANCE = .0002
KENDALL'S TAU C = .39197 SIGNIFICANCE = .0002
GAMMA = .68872
SOMERS'S D (ASYMMETRIC) = .39246 WITH VA DEPENDENT. = .39642 WITH V16
SOMERS'S D (SYMMETRIC) = .39443
ETA = .39443 WITH VA DEPENDENT. = .39443 WITH V16 DEPENDENT.

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * *
V16 BY V11A
* *

V16 \ V11A (COUNT / ROW PCT / COL PCT / TOT PCT)	1.	2.	3.	4.	ROW TOTAL
1.	7 15.9 53.8 8.2	7 15.9 30.4 8.2	18 40.9 54.5 21.2	12 27.3 75.0 14.1	44 51.8
2.	6 14.6 46.2 7.1	16 39.0 69.6 18.8	15 36.6 45.5 17.6	4 9.8 25.0 4.7	41 48.2
COLUMN TOTAL	13 15.3	23 27.1	33 38.8	16 18.8	85 100.0

CHI SQUARE = 7.77519 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0509
CRAMER,S V = .30244
CONTINGENCY COEFFICIENT = .28949
LAMBDA (ASYMMETRIC) = .21951 WITH V16 DEPENDENT. = .01923 WITH V11A DEPEN
LAMBDA (SYMMETRIC) = .10753
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .06836 WITH V16 DEPENDENT. = .01579 WI
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .04699
KENDALL,S TAU B = -.19982 SIGNIFICANCE = .0233
KENDALL,S TAU C = -.23917 SIGNIFICANCE = .0233
GAMMA = -.32432
SOMERS,S D (ASYMMETRIC) = -.16673 WITH V16 DEPENDENT. = -.23947 WITH V11A D
SOMERS,S D (SYMMETRIC) = -.19659
ETA = .30244 WITH V16 DEPENDENT. = .19841 WITH V11A DEPENDENT.

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WOMEN SHOP RISK

NONAME (CREATION DATE = 07 JUN 84)

```
* * * * * * * * * * * * * * * *   C R O S S T A B U L A T I O N   O F   * * * * * * * * * * *
V16                                                   BY  V11K
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

             V11K
     COUNT   I
   ROW PCT   I                                     ROW
   COL PCT   I                                     TOTAL
   TOT PCT   I       2.I       3.I       4.I
   --------I--------I--------I--------I
        1.   I      0  I      5  I     39  I       44
             I     .0  I   11.4  I   88.6  I     52.4
             I     .0  I   25.0  I   61.9  I
             I     .0  I    6.0  I   46.4  I
            -I--------I--------I--------I
        2.   I      1  I     15  I     24  I       40
             I    2.5  I   37.5  I   60.0  I     47.6
             I  100.0  I   75.0  I   38.1  I
             I    1.2  I   17.9  I   28.6  I
            -I--------I--------I--------I
    COLUMN          1        20        63          84
     TOTAL        1.2      23.8      75.0       100.0
```

```
SQUARE =       9.40227 WITH   2 DEGREES OF FREEDOM   SIGNIFICANCE =    .0091
MER,S V =        .33456
TINGENCY COEFFICIENT =     .31728
BDA (ASYMMETRIC) =     .27500 WITH V16        DEPENDENT.          =    .00000 WITH V11K      DEPENC
BDA (SYMMETRIC) =     .18033
ERTAINTY COEFFICIENT (ASYMMETRIC) =     .08631 WITH V16       DEPENDENT.          =    .04788 WIT
ERTAINTY COEFFICIENT (SYMMETRIC) =     .09173
DALL'S TAU B =      -.33107  SIGNIFICANCE =    .0012
DALL'S TAU C =      -.28855  SIGNIFICANCE =    .0012
MA =     -.67957
ERS,S D (ASYMMETRIC) =   -.37900 WITH V16       DEPENDENT.          =  -.28920 WITH V11K       D
ERS,S D (SYMMETRIC) =   -.32807
 =     .33456 WITH V16       DEPENDENT.          =    .33373 WITH V11K      DEPENDENT.

BER OF MISSING OBSERVATIONS =        1
```

EN SHOP RISK 07 JUN 84

MEN SHOP RISK 07 JUN 84

LE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * *
VH BY V17
* P

COUNT / ROW PCT / COL PCT / TOT PCT	V17 1.	V17 2.	ROW TOTAL
1.	10 / 66.7 / 20.8 / 11.8	5 / 33.3 / 13.5 / 5.9	15 / 17.6
2.	25 / 73.5 / 52.1 / 29.4	9 / 26.5 / 24.3 / 10.6	34 / 40.0
3.	10 / 34.5 / 20.8 / 11.8	19 / 65.5 / 51.4 / 22.4	29 / 34.1
4.	3 / 42.9 / 6.3 / 3.5	4 / 57.1 / 10.8 / 4.7	7 / 8.2
COLUMN TOTAL	48 / 56.5	37 / 43.5	85 / 100.0

HI SQUARE = 10.89090 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0123
AMER,S V = .35795
NTINGENCY COEFFICIENT = .33701
MBDA (ASYMMETRIC) = .19608 WITH VH DEPENDENT. = .27027 WITH V17 DEPENDENT.
MBDA (SYMMETRIC) = .22727
ICERTAINTY COEFFICIENT (ASYMMETRIC) = .05239 WITH VH DEPENDENT. = .09527 WITH V17
ICERTAINTY COEFFICIENT (SYMMETRIC) = .06761
NDALL,S TAU B = .27224 SIGNIFICANCE = .0037
NDALL,S TAU C = .31612 SIGNIFICANCE = .0037
MMA = .43957
MERS,S D (ASYMMETRIC) = .32151 WITH VH DEPENDENT. = .23052 WITH V17 DEPENDE
MERS,S D (SYMMETRIC) = .26852
A = .27092 WITH VH DEPENDENT. = .35795 WITH V17 DEPENDENT.

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * *

V17 BY V10E

* *

V17	COUNT / ROW PCT / COL PCT / TOT PCT (V10E)	1.	2.	3.	4.	ROW TOTAL
1.		20 41.7 76.9 23.8	18 37.5 47.4 21.4	4 8.3 36.4 4.8	6 12.5 66.7 7.1	48 57.1
2.		6 16.7 23.1 7.1	20 55.6 52.6 23.8	7 19.4 63.6 8.3	3 8.3 33.3 3.6	36 42.9
COLUMN TOTAL		26 31.0	38 45.2	11 13.1	9 10.7	84 100.0

CHI SQUARE = 7.90903 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0479
CRAMER,S V = .30685
CONTINGENCY COEFFICIENT = .29335
LAMBDA (ASYMMETRIC) = .13889 WITH V17 DEPENDENT. = .04348 WITH V10E DEPENDEN
LAMBDA (SYMMETRIC) = .08537
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .07135 WITH V17 DEPENDENT. = .03970 WITH
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .05102
KENDALL,S TAU B = .18888 SIGNIFICANCE = .0324
KENDALL,S TAU C = .21655 SIGNIFICANCE = .0324
GAMMA = .31780
SOMERS,S D (ASYMMETRIC) = .16139 WITH V17 DEPENDENT. = .22106 WITH V10E DEPI
SOMERS,S D (SYMMETRIC) = .18657
ETA = .30685 WITH V17 DEPENDENT. = .14757 WITH V10E DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

- -

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * *

* * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * *
V17 BY V11C
* PA

V17 (COUNT / ROW PCT / COL PCT / TOT PCT)	V11C 1.	2.	3.	4.	ROW TOTAL
1.	22 46.8 62.9 26.2	20 42.6 60.6 23.8	1 2.1 12.5 1.2	4 8.5 50.0 4.8	47 56.0
2.	13 35.1 37.1 15.5	13 35.1 39.4 15.5	7 18.9 87.5 8.3	4 10.8 50.0 4.8	37 44.0
COLUMN TOTAL	35 41.7	33 39.3	8 9.5	8 9.5	84 100.0

SQUARE = 7.21085 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0655
MER,S V = .29299
TINGENCY COEFFICIENT = .28117
BDA (ASYMMETRIC) = .16216 WITH V17 DEPENDENT. = .00000 WITH V11C DEPENDENT.
BDA (SYMMETRIC) = .06977
ERTAINTY COEFFICIENT (ASYMMETRIC) = .06686 WITH V17 DEPENDENT. = .03888 WITH V11C
ERTAINTY COEFFICIENT (SYMMETRIC) = .04917
DALL,S TAU B = .16675 SIGNIFICANCE = .0529
DALL,S TAU C = .18934 SIGNIFICANCE = .0529
MA = .28547
ERS,S D (ASYMMETRIC) = .14478 WITH V17 DEPENDENT. = .19206 WITH V11C DEPENDEN
ERS,S D (SYMMETRIC) = .16510
= .29299 WITH V17 DEPENDENT. = .17541 WITH V11C DEPENDENT.

BER OF MISSING OBSERVATIONS = 1

EN SHOP RISK 07 JUN 84

E NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * CROSSTABULATION OF V17 BY V11G * * * * * * * * * * * * P

COUNT / ROW PCT / COL PCT / TOT PCT	V11G 1.	2.	3.	4.	ROW TOTAL
1.	2	7	25	14	48
	4.2	14.6	52.1	29.2	56.5
	50.0	46.7	73.5	43.8	
	2.4	8.2	29.4	16.5	
2.	2	8	9	18	37
	5.4	21.6	24.3	48.6	43.5
	50.0	53.3	26.5	56.3	
	2.4	9.4	10.6	21.2	
COLUMN TOTAL	4	15	34	32	85
	4.7	17.6	40.0	37.6	100.0

I SQUARE = 6.78620 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0790

AMER,S V = .28256

NTINGENCY COEFFICIENT = .27191

MBDA (ASYMMETRIC) = .13514 WITH V17 DEPENDENT. = .17647 WITH V11G DEPENDENT.

MBDA (SYMMETRIC) = .15909

ERTAINTY COEFFICIENT (ASYMMETRIC) = .05993 WITH V17 DEPENDENT. = .03465 WITH V11

ERTAINTY COEFFICIENT (SYMMETRIC) = .04391

NDALL,S TAU B = .08667 SIGNIFICANCE = .1985

NDALL,S TAU C = .09910 SIGNIFICANCE = .1985

MMA = .14447

MERS,S D (ASYMMETRIC) = .07452 WITH V17 DEPENDENT. = .10079 WITH V11G DEPENDEN

MERS,S D (SYMMETRIC) = .08569

= .28256 WITH V17 DEPENDENT. = .05783 WITH V11G DEPENDENT.

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F V17 BY V11H * * * * * * * * * * *

V17 by V11H (each cell: COUNT / ROW PCT / COL PCT / TOT PCT)

V17		1.	2.	3.	4.	ROW TOTAL
1.	COUNT	17	21	10	0	48
	ROW PCT	35.4	43.8	20.8	.0	56.5
	COL PCT	65.4	65.6	43.5	.0	
	TOT PCT	20.0	24.7	11.8	.0	
2.	COUNT	9	11	13	4	37
	ROW PCT	24.3	29.7	35.1	10.8	43.5
	COL PCT	34.6	34.4	56.5	100.0	
	TOT PCT	10.6	12.9	15.3	4.7	
COLUMN TOTAL		26	32	23	4	85
		30.6	37.6	27.1	4.7	100.0

CHI SQUARE = 8.70002 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0336
CRAMER,S V = .31993
CONTINGENCY COEFFICIENT = .30471
LAMBDA (ASYMMETRIC) = .18919 WITH V17 DEPENDENT. = .03774 WITH V11H DEPENDENT
LAMBDA (SYMMETRIC) = .10000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .08754 WITH V17 DEPENDENT. = .04883 WITH V
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .06269
KENDALL,S TAU B = .23016 SIGNIFICANCE = .0118
KENDALL,S TAU C = .26796 SIGNIFICANCE = .0118
GAMMA = .38352
SOMERS,S D (ASYMMETRIC) = .19438 WITH V17 DEPENDENT. = .27252 WITH V11H DEPEN
SOMERS,S D (SYMMETRIC) = .22691
ETA = .31993 WITH V17 DEPENDENT. = .26717 WITH V11H DEPENDENT.

NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * CROSSTABULATION OF V19 BY V10B * * * * * * * * * * * * * * * * PAG

COUNT / ROW PCT / COL PCT / TOT PCT	V10B 1.	2.	3.	4.	ROW TOTAL
1.	25	28	1	1	55
	45.5	50.9	1.8	1.8	64.7
	51.0	84.8	50.0	100.0	
	29.4	32.9	1.2	1.2	
2.	24	5	1	0	30
	80.0	16.7	3.3	.0	35.3
	49.0	15.2	50.0	.0	
	28.2	5.9	1.2	.0	
COLUMN TOTAL	49 57.6	33 38.8	2 2.4	1 1.2	85 100.0

SQUARE = 10.61612 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0140
ER,S V = .35341
INGENCY COEFFICIENT = .33321
DA (ASYMMETRIC) = .00000 WITH V19 DEPENDENT. = .08333 WITH V10B DEPENDENT.
DA (SYMMETRIC) = .04545
RTAINTY COEFFICIENT (ASYMMETRIC) = .10528 WITH V19 DEPENDENT. = .08282 WITH V10B
RTAINTY COEFFICIENT (SYMMETRIC) = .09271
ALL'S TAU B = -.31524 SIGNIFICANCE = .0017
ALL'S TAU C = -.30616 SIGNIFICANCE = .0017
A = -.60836
RS,S D (ASYMMETRIC) = -.29651 WITH V19 DEPENDENT. = -.33515 WITH V10B DEPENDEN
RS,S D (SYMMETRIC) = -.31465
= .35341 WITH V19 DEPENDENT. = .28933 WITH V10B DEPENDENT.

FILE NONAME (CREATION DATE = 11 JUN 84)

* * * * * * * * * * * * * * * * * * * CROSSTABULATION OF * * * *
V11F BY V19
* *

V11F	COUNT / ROW PCT / COL PCT / TOT PCT	V19 1.	V19 2.	ROW TOTAL
1.		35	14	49
		71.4	28.6	58.3
		64.8	46.7	
		41.7	16.7	
2.		19	16	35
		54.3	45.7	41.7
		35.2	53.3	
		22.6	19.0	
COLUMN TOTAL		54	30	84
		64.3	35.7	100.0

CORRECTED CHI SQUARE = 1.92000 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .1
PHI = .17638
CONTINGENCY COEFFICIENT = .17370
LAMBDA (ASYMMETRIC) = .05714 WITH V11F DEPENDENT. = .00000 WITH V19
LAMBDA (SYMMETRIC) = .03077
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .02280 WITH V11F DEPENDENT. =
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .02327
KENDALL'S TAU B = .17638 SIGNIFICANCE = .0540
KENDALL'S TAU C = .16667 SIGNIFICANCE = .0540
GAMMA = .35593
SOMERS'S D (ASYMMETRIC) = .18148 WITH V11F DEPENDENT. = .17143 WITH
SOMERS'S D (SYMMETRIC) = .17631
ETA = .17638 WITH V11F DEPENDENT. = .17638 WITH V19 DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

***** THIS DISCRIMINANT ANALYSIS REQUIRES 1026 WORDS OF WORKSPACE *****

WOMEN SHOP RISK

FILE NONAME (CREATION DATE = 08 JUN 84)

GROUP COUNTS

	GROUP 1	GROUP 2	TOTAL
COUNT	38.0000	47.0000	85.0000

MEANS

	GROUP 1	GROUP 2	TOTAL
V12	3.1579	2.8936	3.0118
V13	1.6053	1.6596	1.6353
V14	4.1053	4.4681	4.3059
V15	1.9737	2.0426	2.0118
V16	1.2632	1.6596	1.4824
V17	1.4211	1.4468	1.4353
V18	1.3421	1.3404	1.3412
V19	1.3158	1.3830	1.3529

STANDARD DEVIATIONS

	GROUP 1	GROUP 2	TOTAL
V12	1.4242	1.0882	1.2488
V13	.4954	.4790	.4842
V14	1.2034	1.1200	1.1652
V15	.7529	.7210	.7318
V16	.4463	.4790	.5027
V17	.5004	.5025	.4987
V18	.4808	.4790	.4769
V19	.4711	.4914	.4807

WILKS, LAMBDA (U-STATISTIC) AND UNIVARIATE F-RATIO WITH 1 AND 83 DEGREES OF FREEDOM

VARIABLE	WILKS, LAMBDA	F
V12	.9888	.9404
V13	.9969	.2620
V14	.9757	2.0630
V15	.9978	.1843
V16	.8444	15.2921
V17	.9993	.0554
V18	1.0000	.0002
V19	.9951	.4076

ANALYSIS NUMBER 1

SOLUTION METHOD - DIRECT.
PRIOR PROBABILITIES -

GROUP 1	GROUP 2
.50000	.50000

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANCE
1	.21428	100.00	.420	0	.8235	15.338	8	.053

REMAINING COMPUTATIONS WILL BE BASED ON 1 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
V12	.21347
V13	-.01542
V14	-.12859
V15	.05140
V16	-.97147
V17	.35820
V18	-.17264
V19	-.07709

CENTROIDS OF GROUPS IN REDUCED SPACE

	FUNC 1
GROUP 1	.46443
GROUP 2	-.37549

PREDICTION RESULTS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSH GP. 1	GP. 2
GROUP 1	38.	28. 73.7%	10. 26.3%
GROUP 2	47.	16. 34.0%	31. 66.0%

PERCENT OF 'GROUPED' CASES CORRECTLY CLASSIFIED: 69.41%

WOMEN SHOP RISK

FILE NONAME (CREATION DATE = 08 JUN 84)

GROUP COUNTS

	GROUP 1	GROUP 2	TOTAL
COUNT	37.0000	45.0000	82.0000

MEANS

	GROUP 1	GROUP 2	TOTAL
V11A	2.9459	2.3333	2.6098
V11B	1.8649	1.5778	1.7073
V11C	1.7838	1.9778	1.8902
V11D	2.3514	2.2000	2.2683
V11E	2.9189	2.7333	2.8171
V11F	2.5135	2.3778	2.4390
V11G	2.9459	3.2667	3.1220
V11H	2.0000	2.0889	2.0488
V11J	3.6216	3.4667	3.5366
V11K	3.7838	3.6889	3.7317
V11M	2.4865	2.3333	2.4024

STANDARD DEVIATIONS

	GROUP 1	GROUP 2	TOTAL
V11A	.9412	.9045	.9655
V11B	.8870	.8115	.8533
V11C	.9170	.9050	.9429
V11D	1.0332	.8146	.9169
V11E	1.1150	1.1520	1.1345
V11F	.9316	.7772	.8476
V11G	.9112	.8006	.8662
V11H	1.0000	.7036	.8845
V11J	.5340	.7261	.6703
V11K	.4173	.5104	.4727
V11M	1.0703	.8350	.9669

WILKS, LAMBDA (U-STATISTIC) AND UNIVARIATE F-RATIO WITH 1 AND 80 DEGREES OF FR

VARIABLE	WILKS, LAMBDA	F
V11A	.8991	8.9793
V11B	.9716	2.3364
V11C	.9804	.8580
V11D	.9932	.5502
V11E	.9933	.5403
V11F	.9936	.5176
V11G	.9656	2.8469
V11H	.9975	.2017
V11J	.9866	1.0864
V11K	.9899	.8105
V11M	.9937	.5064

ANALYSIS NUMBER 1

SOLUTION METHOD - DIRECT.
PRIOR PROBABILITIES -

GROUP 1	GROUP 2
.50000	.50000

DISCRIMINANT FUNCTION	EIGENVALUE	RELATIVE PERCENTAGE	CANONICAL CORRELATION	FUNCTIONS DERIVED	WILKS' LAMBDA	CHI-SQUARE	DF	SIGNIFICANC
1	.31401	100.00	.489	0	.761	28.345	11	.041

REMAINING COMPUTATIONS WILL BE BASED ON 1 DISCRIMINANT FUNCTION(S)

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	FUNC 1
V11A	-.72960
V11B	-.14185
V11C	.14531
V11D	-.00255
V11E	-.13978
V11F	-.22714
V11G	.68408
V11H	.35156
V11J	-.37604
V11K	-.09530
V11M	.11187

CENTROIDS OF GROUPS IN REDUCED SPACE

	FUNC 1
GROUP 1	-.53582
GROUP 2	.44056

PREDICTION RESULTS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP GP. 1	GP. 2
GROUP 1	37.	26. 70.3%	11. 29.7%
GROUP 2	45.	11. 24.4%	34. 75.6%

PERCENT OF 'GROUPED' CASES CORRECTLY CLASSIFIED: 73.17%

E NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * *
VA BY V6A
* PA

V6A COUNT / ROW PCT / COL PCT / TOT PCT	1.	2.	3.	4.	ROW TOTAL
1.	4 10.5 44.4 4.7	5 13.2 29.4 5.9	17 44.7 38.6 20.0	12 31.6 80.0 14.1	38 44.7
2.	5 10.6 55.6 5.9	12 25.5 70.6 14.1	27 57.4 61.4 31.8	3 6.4 20.0 3.5	47 55.3
COLUMN TOTAL	9 10.6	17 20.0	44 51.8	15 17.6	85 100.0

SQUARE = 9.82338 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0201
MER,S V = .33995
TINGENCY COEFFICIENT = .32186
BDA (ASYMMETRIC) = .23684 WITH VA DEPENDENT. = .00000 WITH V6A DEPENDENT.
BDA (SYMMETRIC) = .11392
ERTAINTY COEFFICIENT (ASYMMETRIC) = .08728 WITH VA DEPENDENT. = .04973 WITH V6A
ERTAINTY COEFFICIENT (SYMMETRIC) = .06336
DALL,S TAU B = -.23103 SIGNIFICANCE = .0116
DALL,S TAU C = -.26187 SIGNIFICANCE = .0116
MA = -.39059
ERS,S D (ASYMMETRIC) = -.20153 WITH VA DEPENDENT. = -.26484 WITH V6A DEPENDE
ERS,S D (SYMMETRIC) = -.22889
= .33995 WITH VA DEPENDENT. = .21776 WITH V6A DEPENDENT.

CROSSTABULATION OF VA BY V2

VA	V2 1.	2.	3.	4.	5.	ROW TOTAL
1.	28	0	4	1	4	37
	75.7	.0	10.8	2.7	10.8	44.0
	57.1	.0	23.5	12.5	57.1	
	33.3	.0	4.8	1.2	4.8	
2.	21	3	13	7	3	47
	44.7	6.4	27.7	14.9	6.4	56.0
	42.9	100.0	76.5	87.5	42.9	
	25.0	3.6	15.5	8.3	3.6	
COLUMN TOTAL	49	3	17	8	7	84
	58.3	3.6	20.2	9.5	8.3	100.0

CHI SQUARE = 12.39272 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = .0147
CRAMER'S V = .38410
CONTINGENCY COEFFICIENT = .35856
LAMBDA (ASYMMETRIC) = .21622 WITH VA DEPENDENT. = .00000 WITH V2 DEPENDENT
LAMBDA (SYMMETRIC) = .11111
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .12313 WITH VA DEPENDENT. = .07112 WITH V
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .09016
KENDALL'S TAU B = .24050 SIGNIFICANCE = .0097
KENDALL'S TAU C = .26190 SIGNIFICANCE = .0097
GAMMA = .42778
SOMERS'S D (ASYMMETRIC) = .21772 WITH VA DEPENDENT. = .26567 WITH V2 DEPEN
SOMERS'S D (SYMMETRIC) = .23932
ETA = .38410 WITH VA DEPENDENT. = .21156 WITH V2 DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

E NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * * * * * * * * * *
VA BY V6A
* PA

VA \ V6A (COUNT / ROW PCT / COL PCT / TOT PCT)	1.	2.	3.	4.	ROW TOTAL
1.	4 10.5 44.4 4.7	5 13.2 29.4 5.9	17 44.7 38.6 20.0	12 31.6 80.0 14.1	38 44.7
2.	5 10.6 55.6 5.9	12 25.5 70.6 14.1	27 57.4 61.4 31.8	3 6.4 20.0 3.5	47 55.3
COLUMN TOTAL	9 10.6	17 20.0	44 51.8	15 17.6	85 100.0

I SQUARE = 9.82338 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0201
AMER,S V = .33995
NTINGENCY COEFFICIENT = .32186
MBDA (ASYMMETRIC) = .23684 WITH VA DEPENDENT. = .00000 WITH V6A DEPENDENT.
MBDA (SYMMETRIC) = .11392
CERTAINTY COEFFICIENT (ASYMMETRIC) = .08728 WITH VA DEPENDENT. = .04973 WITH V6A
CERTAINTY COEFFICIENT (SYMMETRIC) = .06336
NDALL,S TAU B = -.23103 SIGNIFICANCE = .0116
NDALL,S TAU C = -.26187 SIGNIFICANCE = .0116
MMA = -.39059
MERS,S D (ASYMMETRIC) = -.20153 WITH VA DEPENDENT. = -.26484 WITH V6A DEPENDE
MERS,S D (SYMMETRIC) = -.22889
A = .33995 WITH VA DEPENDENT. = .21776 WITH V6A DEPENDENT.

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WOMEN SHOP RISK 07 JUN 84

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * * CROSSTABULATION OF V17 BY V10B * * * * * * * * * *

V17	COUNT / ROW PCT / COL PCT / TOT PCT	V10B 1.	2.	3.	4.	ROW TOTAL
1.		33	14	0	1	48
		68.8	29.2	.0	2.1	56.5
		67.3	42.4	.0	100.0	
		38.8	16.5	.0	1.2	
2.		16	19	2	0	37
		43.2	51.4	5.4	.0	43.5
		32.7	57.6	100.0	.0	
		18.8	22.4	2.4	.0	
COLUMN TOTAL		49 57.6	33 38.8	2 2.4	1 1.2	85 100.0

CHI SQUARE = 8.37222 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0389
CRAMER,S V = .31384
CONTINGENCY COEFFICIENT = .29944
LAMBDA (ASYMMETRIC) = .18919 WITH V17 DEPENDENT. = .08333 WITH V10B DEPENDE
LAMBDA (SYMMETRIC) = .13699
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .08173 WITH V17 DEPENDENT. = .06781 WITH
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .07412
KENDALL,S TAU B = .25275 SIGNIFICANCE = .0093
KENDALL,S TAU C = .25467 SIGNIFICANCE = .0093
GAMMA = .46843
SOMERS,S D (ASYMMETRIC) = .24665 WITH V17 DEPENDENT. = .25901 WITH V10B DEP
SOMERS,S D (SYMMETRIC) = .25268
ETA = .31384 WITH V17 DEPENDENT. = .21895 WITH V10B DEPENDENT.

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * * CROSSTABULATION OF V17 BY V10C * * * * * * * * * *

V17 / V10C	1.	2.	3.	4.	ROW TOTAL
1. COUNT	6	12	23	7	48
ROW PCT	12.5	25.0	47.9	14.6	56.5
COL PCT	85.7	75.0	56.1	33.3	
TOT PCT	7.1	14.1	27.1	8.2	
2. COUNT	1	4	18	14	37
ROW PCT	2.7	10.8	48.6	37.8	43.5
COL PCT	14.3	25.0	43.9	66.7	
TOT PCT	1.2	4.7	21.2	16.5	
COLUMN TOTAL	7	16	41	21	85
	8.2	18.8	48.2	24.7	100.0

CHI SQUARE = 9.24583 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0262
CRAMER,S V = .32981
CONTINGENCY COEFFICIENT = .31321
LAMBDA (ASYMMETRIC) = .18919 WITH V17 DEPENDENT. = .00000 WITH V10C DEPENDE
LAMBDA (SYMMETRIC) = .08642
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .08342 WITH V17 DEPENDENT. = .04693 WITH
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .06007
KENDALL,S TAU B = .30715 SIGNIFICANCE = .0013
KENDALL,S TAU C = .35100 SIGNIFICANCE = .0013
GAMMA = .52397
SOMERS,S D (ASYMMETRIC) = .26428 WITH V17 DEPENDENT. = .35698 WITH V10C DEP
SOMERS,S D (SYMMETRIC) = .30371
ETA = .32981 WITH V17 DEPENDENT. = .32578 WITH V10C DEPENDENT.

V17 BY V10F

V17	COUNT / ROW PCT / COL PCT / TOT PCT	V10F 1.	2.	3.	4.	ROW TOTAL
1.		21	22	5	0	48
		43.8	45.8	10.4	.0	56.5
		67.7	57.9	35.7	.0	
		24.7	25.9	5.9	.0	
2.		10	16	9	2	37
		27.0	43.2	24.3	5.4	43.5
		32.3	42.1	64.3	100.0	
		11.8	18.8	10.6	2.4	
COLUMN TOTAL		31 36.5	38 44.7	14 16.5	2 2.4	85 100.0

CHI SQUARE = 6.68183 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0828
CRAMER,S V = .28037
CONTINGENCY COEFFICIENT = .26996
LAMBDA (ASYMMETRIC) = .16216 WITH V17 DEPENDENT. = .00000 WITH V10F DEPEND
LAMBDA (SYMMETRIC) = .07143
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .06396 WITH V17 DEPENDENT. = .03935 WIT
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .04872
KENDALL,S TAU B = .23155 SIGNIFICANCE = .0124
KENDALL,S TAU C = .25965 SIGNIFICANCE = .0124
GAMMA = .40120
SOMERS,S D (ASYMMETRIC) = .20303 WITH V17 DEPENDENT. = .26408 WITH V10F DE
SOMERS,S D (SYMMETRIC) = .22956
ETA = .28037 WITH V17 DEPENDENT. = .26522 WITH V10F DEPENDENT.

FILE NONAME (CREATION DATE = 07 JUN 84)

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* * * * * * * * * * * * * * * * * * *   C R O S S T A B U L A T I O N   O F   * * * * * * * * * *
   V17                                                           BY  V10G
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

             V10G
     COUNT   I
   ROW PCT   I                                                  ROW
   COL PCT   I                                                  TOTAL
   TOT PCT   I        1.I        2.I        3.I        4.I
V17          I---------I---------I---------I---------I
        1.   I     16  I     22  I      7  I      3  I     48
             I   33.3  I   45.8  I   14.6  I    6.3  I   56.5
             I   69.6  I   66.7  I   36.8  I   30.0  I
             I   18.8  I   25.9  I    8.2  I    3.5  I
            -I---------I---------I---------I---------I
        2.   I      7  I     11  I     12  I      7  I     37
             I   18.9  I   29.7  I   32.4  I   18.9  I   43.5
             I   30.4  I   33.3  I   63.2  I   70.0  I
             I    8.2  I   12.9  I   14.1  I    8.2  I
            -I---------I---------I---------I---------I
    COLUMN          23        33        19        10        85
     TOTAL        27.1      38.8      22.4      11.8     100.0

CHI SQUARE =       8.82852 WITH   3 DEGREES OF FREEDOM   SIGNIFICANCE =   .0317
CRAMER,S V =      .32228
CONTINGENCY COEFFICIENT =       .30674
LAMBDA (ASYMMETRIC) =     .24324 WITH V17       DEPENDENT.        =   .01923 WITH V10G    DEPENDE
LAMBDA (SYMMETRIC) =     .11236
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =     .07650 WITH V17      DEPENDENT.       =   .04006 WITH
UNCERTAINTY COEFFICIENT (SYMMETRIC) =     .05258
KENDALL,S TAU B =        .26992   SIGNIFICANCE =    .0037
KENDALL,S TAU C =        .31945   SIGNIFICANCE =    .0037
GAMMA =      .43812
SOMERS,S D (ASYMMETRIC) =     .22425 WITH V17      DEPENDENT.         =   .32489 WITH V10G    DEP
SOMERS,S D (SYMMETRIC) =     .26535
ETA =    .32228 WITH V17       DEPENDENT.          =   .29625 WITH V10G     DEPENDENT.
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WOMEN SHOP RISK 07 JUN 84

FILE NONAME (CREATION DATE = 07 JUN 84)

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* * * * * * * * * * * * * * * * * * *   C R O S S T A B U L A T I O N   O F   * * * * * * * * * *
   V17                                                            BY  V10J
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

               V10J
        COUNT  I
      ROW PCT  I                                                    ROW
      COL PCT  I                                                    TOTAL
      TOT PCT  I        1.I        2.I        3.I        4.I
V17    --------I---------I----------I----------I----------I
           1.  I     16  I     24   I      8   I      0   I     48
               I   33.3  I   50.0   I   16.7   I     .0   I   57.1
               I   76.2  I   60.0   I   47.1   I     .0   I
               I   19.0  I   28.6   I    9.5   I     .0   I
              -I---------I----------I----------I----------I
           2.  I      5  I     16   I      9   I      6   I     36
               I   13.9  I   44.4   I   25.0   I   16.7   I   42.9
               I   23.8  I   40.0   I   52.9   I  100.0   I
               I    6.0  I   19.0   I   10.7   I    7.1   I
              -I---------I----------I----------I----------I
        COLUMN       21        40         17          6        84
         TOTAL     25.0      47.6       20.2        7.1     100.0
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CHI SQUARE =    11.95033 WITH   3 DEGREES OF FREEDOM   SIGNIFICANCE =   .0076
CRAMER,S V =     .37718
CONTINGENCY COEFFICIENT =     .35291
LAMBDA (ASYMMETRIC) =    .19444 WITH V17     DEPENDENT.          =   .00000 WITH V10J     DEPEND
LAMBDA (SYMMETRIC) =    .08750
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =    .12488 WITH V17     DEPENDENT.          =   .07038 WIT
UNCERTAINTY COEFFICIENT (SYMMETRIC) =    .09002
KENDALL,S TAU B =      .30601  SIGNIFICANCE =   .0014
KENDALL,S TAU C =      .34921  SIGNIFICANCE =   .0014
GAMMA =      .51678
SOMERS,S D (ASYMMETRIC) =    .26269 WITH V17     DEPENDENT.          =   .35648 WITH V10J     DE
SOMERS,S D (SYMMETRIC) =    .30248
ETA =    .37718 WITH V17     DEPENDENT.          =   .35419 WITH V10J     DEPENDENT.

NUMBER OF MISSING OBSERVATIONS =        1
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WOMEN SHOP RISK

7 JUN 84

FILE NONAME (CREATION DATE = 07 JUN 84)

* * * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F V19 BY V11K *

V19	V11K: COUNT / ROW PCT / COL PCT / TOT PCT	2.	3.	4.	ROW TOTAL
1.		1 1.8 100.0 1.2	8 14.5 40.0 9.5	46 83.6 73.0 54.8	55 65.5
2.		0 .0 .0 .0	12 41.4 60.0 14.3	17 58.6 27.0 20.2	29 34.5
COLUMN TOTAL		1 1.2	20 23.8	63 75.0	84 100.0

CHI SQUARE = 7.85404 WITH 2 DEGREES OF FREEDOM SIGNIFICANCE = .0197
CRAMER,S V = .30578
CONTINGENCY COEFFICIENT = .29241
LAMBDA (ASYMMETRIC) = .13793 WITH V19 DEPENDENT. = .00000 WITH V11K DEPENDENT
LAMBDA (SYMMETRIC) = .08000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .07275 WITH V19 DEPENDENT. = .07683 WITH V
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .07473
KENDALL,S TAU B = -.26442 SIGNIFICANCE = .0077
KENDALL,S TAU C = -.21939 SIGNIFICANCE = .0077
GAMMA = -.53975
SOMERS,S D (ASYMMETRIC) = -.28816 WITH V19 DEPENDENT. = -.24263 WITH V11K DEPEN
SOMERS,S D (SYMMETRIC) = -.26344
ETA = .30578 WITH V19 DEPENDENT. = .23670 WITH V11K DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

EN SHOP RISK 07 JUN 84

E NONAME (CREATION DATE = 07 JUN 84)

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V18 BY V10G
* PA

V18 \ V10G	1.	2.	3.	4.	ROW TOTAL
1.	10	27	12	7	56
	17.9	48.2	21.4	12.5	65.9
	43.5	81.8	63.2	70.0	
	11.8	31.8	14.1	8.2	
2.	13	6	7	3	29
	44.8	20.7	24.1	10.3	34.1
	56.5	18.2	36.8	30.0	
	15.3	7.1	8.2	3.5	
COLUMN TOTAL	23	33	19	10	85
	27.1	38.8	22.4	11.8	100.0

I SQUARE = 9.00262 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0293
AMER,S V = .32544
NTINGENCY COEFFICIENT = .30947
MBDA (ASYMMETRIC) = .10345 WITH V18 DEPENDENT. = .13462 WITH V10G DEPENDENT.
MBDA (SYMMETRIC) = .12346
CERTAINTY COEFFICIENT (ASYMMETRIC) = .08338 WITH V18 DEPENDENT. = .04092 WITH V10G
CERTAINTY COEFFICIENT (SYMMETRIC) = .05490
NDALL,S TAU B = -.14431 SIGNIFICANCE = .0758
NDALL,S TAU C = -.16332 SIGNIFICANCE = .0758
MMA = -.24042
MERS,S D (ASYMMETRIC) = -.11465 WITH V18 DEPENDENT. = -.18165 WITH V10G DEPENDEN
MERS,S D (SYMMETRIC) = -.14058
A = .32544 WITH V18 DEPENDENT. = .14052 WITH V10G DEPENDENT.

OMEN SHOP RISK 07 JUN 84

ILE NONAME (CREATION DATE = 07 JUN 84)

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V19 BY V10P
* *

19	COUNT / ROW PCT / COL PCT / TOT PCT	V10P 1.	2.	3.	4.	ROW TOTAL
1.		5	13	26	11	55
		9.1	23.6	47.3	20.0	64.7
		50.0	50.0	70.3	91.7	
		5.9	15.3	30.6	12.9	
2.		5	13	11	1	30
		16.7	43.3	36.7	3.3	35.3
		50.0	50.0	29.7	8.3	
		5.9	15.3	12.9	1.2	
	COLUMN TOTAL	10	26	37	12	85
		11.8	30.6	43.5	14.1	100.0

HI SQUARE = 7.73017 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = .0519
RAMER,S V = .30157
ONTINGENCY COEFFICIENT = .28872
AMBDA (ASYMMETRIC) = .00000 WITH V19 DEPENDENT. = .04167 WITH V10P DEPENDENT.
AMBDA (SYMMETRIC) = .02564
NCERTAINTY COEFFICIENT (ASYMMETRIC) = .07745 WITH V19 DEPENDENT. = .04015 WITH V1
NCERTAINTY COEFFICIENT (SYMMETRIC) = .05288
ENDALL,S TAU B = -.27007 SIGNIFICANCE = .0039
ENDALL,S TAU C = -.30173 SIGNIFICANCE = .0039
AMMA = -.47023
OMERS,S D (ASYMMETRIC) = -.22083 WITH V19 DEPENDENT. = -.33030 WITH V10P DEPEND
OMERS,S D (SYMMETRIC) = -.26469
TA = .30157 WITH V19 DEPENDENT. = .28283 WITH V10P DEPENDENT.

FILE NONAME (CREATION DATE = 11 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * *
V11F BY V15
* *

V11F	V15 COUNT / ROW PCT / COL PCT / TOT PCT	1.	2.	ROW TOTAL
	1.	39	10	49
		79.6	20.4	58.3
		62.9	45.5	
		46.4	11.9	
	2.	23	12	35
		65.7	34.3	41.7
		37.1	54.5	
		27.4	14.3	
	COLUMN TOTAL	62	22	84
		73.8	26.2	100.0

CORRECTED CHI SQUARE = 1.37947 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .2402
PHI = .15561
CONTINGENCY COEFFICIENT = .15376
LAMBDA (ASYMMETRIC) = .05714 WITH V11F DEPENDENT. = .00000 WITH V15
LAMBDA (SYMMETRIC) = .03509
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .01765 WITH V11F DEPENDENT. = .02
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01912
KENDALL'S TAU B = .15561 SIGNIFICANCE = .0781
KENDALL'S TAU C = .13492 SIGNIFICANCE = .0781
GAMMA = .34097
SOMERS'S D (ASYMMETRIC) = .17449 WITH V11F DEPENDENT. = .13878 WITH V15
SOMERS'S D (SYMMETRIC) = .15460
ETA = .15561 WITH V11F DEPENDENT. = .15561 WITH V15 DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

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V11G BY V15
* *

V11G	V15 COUNT / ROW PCT / COL PCT / TOT PCT	1.	2.	ROW TOTAL
1.		13	6	19
		68.4	31.6	22.4
		21.0	26.1	
		15.3	7.1	
2.		49	17	66
		74.2	25.8	77.6
		79.0	73.9	
		57.6	20.0	
COLUMN TOTAL		62	23	85
		72.9	27.1	100.0

CORRECTED CHI SQUARE = .04422 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .
PHI = .05459
CONTINGENCY COEFFICIENT = .05451
LAMBDA (ASYMMETRIC) = .00000 WITH V11G DEPENDENT. = .00000 WITH V1!
LAMBDA (SYMMETRIC) = .00000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .00274 WITH V11G DEPENDENT. =
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .00261
KENDALL'S TAU B = -.05459 SIGNIFICANCE = .3084
KENDALL'S TAU C = -.04042 SIGNIFICANCE = .3084
GAMMA = -.14175
SOMERS'S D (ASYMMETRIC) = -.05119 WITH V11G DEPENDENT. = -.05821 WIT
SOMERS'S D (SYMMETRIC) = -.05448
ETA = .05459 WITH V11G DEPENDENT. = .05459 WITH V15 DEPENDEN

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FILE   NONAME   (CREATION DATE = 11 JUN 84)

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    V11H                                                      BY  V15
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                  V15
          COUNT   I
          ROW PCT I                              ROW
          COL PCT I                              TOTAL
          TOT PCT I         1.I         2.I
V11H      --------I---------I---------I
              1.  I    46   I    12   I     58
                  I  79.3   I  20.7   I   68.2
                  I  74.2   I  52.2   I
                  I  54.1   I  14.1   I
                 -I---------I---------I
              2.  I    16   I    11   I     27
                  I  59.3   I  40.7   I   31.8
                  I  25.8   I  47.8   I
                  I  18.8   I  12.9   I
                 -I---------I---------I
          COLUMN       62        23         85
           TOTAL     72.9      27.1      100.0

CORRECTED CHI SQUARE =      2.80574    WITH 1 DEGREE OF FREEDOM  SIGNIFICANCE =  .0939
PHI =     .21012
CONTINGENCY COEFFICIENT =      .20563
LAMBDA (ASYMMETRIC) =   .00000 WITH V11H    DEPENDENT.        =  .00000 WITH V15     DEPE
LAMBDA (SYMMETRIC) =   .00000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =   .03403 WITH V11H    DEPENDENT.       =   .03648 W
UNCERTAINTY COEFFICIENT (SYMMETRIC) =   .03519
KENDALL'S TAU B =      .21012  SIGNIFICANCE =   .0271
KENDALL'S TAU C =      .17384  SIGNIFICANCE =   .0271
GAMMA =      .44986
SOMERS'S D (ASYMMETRIC) =   .22020 WITH V11H    DEPENDENT.        =  .20051 WITH V15
SOMERS'S D (SYMMETRIC) =   .20689
ETA =   .21012 WITH V11H    DEPENDENT.          =  .21012 WITH V15     DEPENDENT.
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WOMEN SHOP RISK

FILE NONAME (CREATION DATE = 11 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * *
V11J BY V15
* *

V11J (COUNT / ROW PCT / COL PCT / TOT PCT)	V15 1.	V15 2.	ROW TOTAL
1.	7 77.8 11.3 8.2	2 22.2 8.7 2.4	9 10.6
2.	55 72.4 88.7 64.7	21 27.6 91.3 24.7	76 89.4
COLUMN TOTAL	62 72.9	23 27.1	85 100.0

CORRECTED CHI SQUARE = .00264 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE =
PHI = .03746
CONTINGENCY COEFFICIENT = .03744
LAMBDA (ASYMMETRIC) = .00000 WITH V11J DEPENDENT. = .00000 WITH V15
LAMBDA (SYMMETRIC) = .00000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .00215 WITH V11J DEPENDENT. =
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .00158
KENDALL'S TAU B = .03746 SIGNIFICANCE = .3657
KENDALL'S TAU C = .02048 SIGNIFICANCE = .3657
GAMMA = .14397
SOMERS'S D (ASYMMETRIC) = .02595 WITH V11J DEPENDENT. = .05409 WITH
SOMERS'S D (SYMMETRIC) = .03507
ETA = .03747 WITH V11J DEPENDENT. = .03747 WITH V15 DEPENDENT

WOMEN SHOP RISK 1

FILE NONAME (CREATION DATE = 11 JUN 84)

* * * * * * * * * * * * * * * * * * C R O S S T A B U L A T I O N O F * * * * *
V11J BY V18
* *

V11J	V18 COUNT / ROW PCT / COL PCT / TOT PCT	1.	2.	ROW TOTAL
	1.	5	4	9
		55.6	44.4	10.6
		8.9	13.8	
		5.9	4.7	
	2.	51	25	76
		67.1	32.9	89.4
		91.1	86.2	
		60.0	29.4	
	COLUMN TOTAL	56	29	85
		65.9	34.1	100.0

-150-

CORRECTED CHI SQUARE = .10194 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .74
PHI = .07496
CONTINGENCY COEFFICIENT = .07475
LAMBDA (ASYMMETRIC) = .00000 WITH V11J DEPENDENT. = .00000 WITH V18
LAMBDA (SYMMETRIC) = .00000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .00803 WITH V11J DEPENDENT. =
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .00554
KENDALL'S TAU B = -.07496 SIGNIFICANCE = .2460
KENDALL'S TAU C = -.04374 SIGNIFICANCE = .2460
GAMMA = -.24012
SOMERS'S D (ASYMMETRIC) = -.04865 WITH V11J DEPENDENT. = -.11550 WITH V
SOMERS'S D (SYMMETRIC) = -.06846
ETA = .07496 WITH V11J DEPENDENT. = .07496 WITH V18 DEPENDENT.

FILE NONAME (CREATION DATE = 11 JUN 84)

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V11K BY V18
* PAG

V11K	V18 COUNT / ROW PCT / COL PCT / TOT PCT	1.	2.	ROW TOTAL
1.	COUNT	1	0	1
	ROW PCT	100.0	.0	1.2
	COL PCT	1.8	.0	
	TOT PCT	1.2	.0	
2.	COUNT	54	29	83
	ROW PCT	65.1	34.9	98.8
	COL PCT	98.2	100.0	
	TOT PCT	64.3	34.5	
COLUMN TOTAL		55	29	84
		65.5	34.5	100.0

CORRECTED CHI SQUARE = .10723 WITH 1 DEGREE OF FREEDOM SIGNIFICANCE = .7433
PHI = .07970
CONTINGENCY COEFFICIENT = .07945
LAMBDA (ASYMMETRIC) = .00000 WITH V11K DEPENDENT. = .00000 WITH V18 DEPENDENT.
LAMBDA (SYMMETRIC) = .00000
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = .07865 WITH V11K DEPENDENT. = .00788 WITH V18
UNCERTAINTY COEFFICIENT (SYMMETRIC) = .01433
KENDALL'S TAU B = .07970 SIGNIFICANCE = .2339
KENDALL'S TAU C = .01644 SIGNIFICANCE = .2339
GAMMA = 1.00000
SOMERS'S D (ASYMMETRIC) = .01818 WITH V11K DEPENDENT. = .34940 WITH V18 DEPENDEN
SOMERS'S D (SYMMETRIC) = .03456
ETA = .07972 WITH V11K DEPENDENT. = .07970 WITH V18 DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

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