A Study of the Relationship between Discount Coupons and Repeat Purchase Behavior of Customers for Pizza Restaurants

by

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Thesis submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

in

Hospitality and Tourism Management

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May, 1994

Blacksburg, Virginia

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(Abstract)

Currently, coupons are the most popular and relied-upon form of consumer sales promotion in the United States (Schultz et al., 1993). The primary purpose of this study was to examine the relationship between discount coupons and repeat purchase in pizza restaurants. The objective of the study was to determine whether the relationship between pizza coupon usage and repeat purchase behavior exists. The variables, such as demographics and psychographics, were used to examine and describe those who make repeat purchases. Also, this study examined which type of coupon distribution resulted in the most frequent redemption.

A survey instrument was utilized to gather information. Consumers in Blacksburg, Virginia were the sample for this study due to the ease of following up the questionnaire and obtaining addresses of consumers. The questionnaire was mailed to them asking about their frequency of coupon usage, and whether coupons increase the frequency of restaurant

visits.

This study will be beneficial to pizza restaurant marketers because the results from this study demonstrated that: 1) a relationship between coupon usage and frequency of repeat purchases of pizza exists; 2) a relationship between pizza coupon usage and the usage of coupons when trying a new restaurant exists; 3) a relationship between pizza coupon usage and age is statistically significant even though the analysis does not indicate which age groups are significantly different; 4) a relationship between income and frequency of pizza coupon usage is not statistically significant.

The results show that respondents preferred to redeem coupons when coupons were given in the form of a dollar off and pizza coupons were most often redeemed when they were distributed through direct mail. About 78 percent of the respondents did not receive coupons through door-hanging. The results are useful for pizza restaurant managers for market segmentation and designing coupon promotions.

ACKNOWLEDGEMENTS

This thesis would not have been possible without the encouragement and guidance of a number of people to whom I would like to express my appreciation.

My appreciation goes to Dr. Ken McCleary, my advisory committee chairman. Dr. McCleary's guidance, understanding, sensitivity, and personal encouragement which have been an integral part of my successful completion of the program. He will be remembered for his willingness to spend a considerable amount of time with me.

Sincere thanks goes to Dr. Mahmood Khan, who gave me the chance to study at Virginia Tech. I am grateful for his kindness and his valuable guidance. He will always be thought of as a sensitive professor who understood and assisted me during my difficult times.

My appreciation is extended to Mr. Kost Mark for his personal encouragement and support during my proposal and for his valuable industry perspective.

I would like to express my gratitude to Dr. Pamela Weaver. I will always remember her support and her Research Method course which have been an important part of my completion of the thesis. Finally, I would like to thank my mother, Yaowapha Phakdeesuparit, and my roommate, Dr. Vipaporn Bosereewong (Vip). Without their support, patience, and love, I would not have made it through.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Coupons are certificates that provide the consumer with an incentive to buy a product. They are generally divided into two basic types: (1) trade-originated and (2) manufacturer-originated. Trade-originated coupons, designed to get consumers to visit a retailer and to purchase items, are redeemable only at a particular store or group of stores (Schultz and Robinson, 1982). Manufacturer-originated coupons are distributed by the marketer of the product and they can be redeemed at any retailer that carries the product (Schultz and Robinson, 1982). Four different types of trade coupons and manufacturer-originated coupons are: discount on one unit, multiple unit discount, get an extra unit free with the purchase, and get a free trade-chosen item with the purchase (Ryan, 1973).

Coupon Delivery

Coupons can be delivered to consumers through free-standing inserts into newspapers and magazines, newspaper run-of-press, direct mail, magazines, and merchandise-distributed coupons. A free-standing insert is a separate page or section on which advertising and various coupons have been printed.

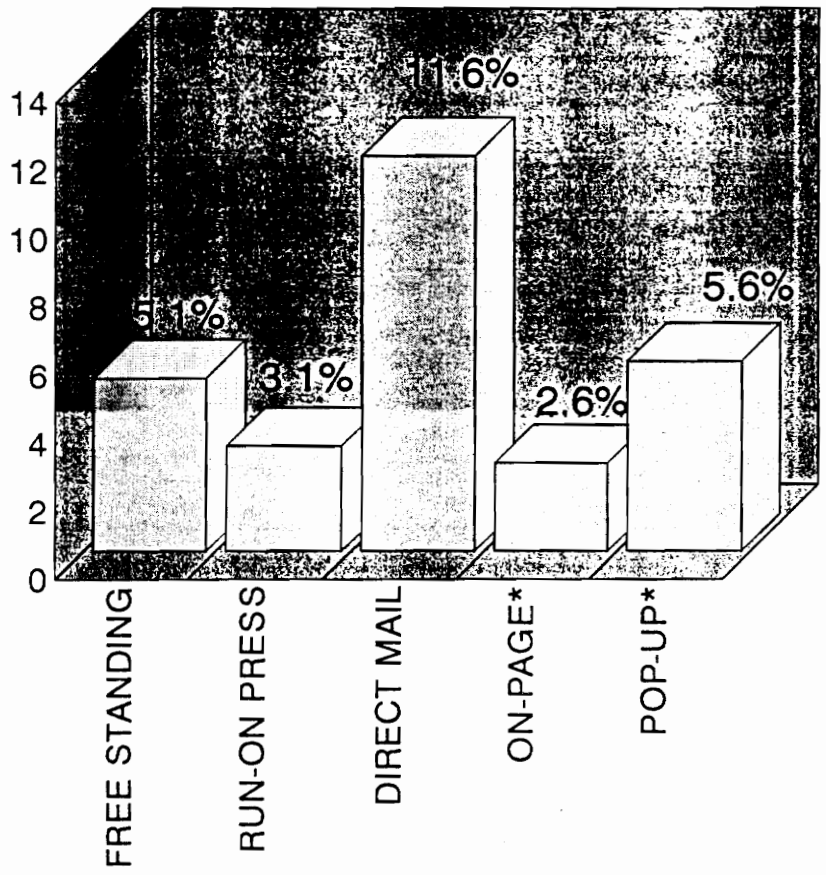
These inserts are not printed as part of the regular newspaper or supplement section. They are said to be free-standing since they are not attached to the newspaper in any way.

Coupons that are distributed run-of-press are printed inside the newspaper rather than inserted into it. Direct mail coupons are coupons that are delivered to consumers though the U.S. Postal Service. Magazine coupons may be of two types: on page and pop-up. On-page coupons are printed on the pages of the magazine. Pop-up coupons are bound into the magazine next to an advertisement for the product so that they literally pop-up when the magazine is opened to that page.

Merchandise-distributed coupons are those distributed with the product; these coupons are usually good on the next purchase. They could be described as being in-pack or on-pack. On-pack coupons are attached to the package or are printed as part of the package itself. Figure 1 represents coupon redemption rates. As shown in the figure, direct mail has the highest redemption rates.

Delivery of coupons by mail has a number of advantages. Coupons may be targeted at specific neighborhoods, or at people who meet demographic specifications. Also, marketers can send coupons directly to competitors' customers to fulfill specific marketing objectives.

COUPON REDEMPTION RATES



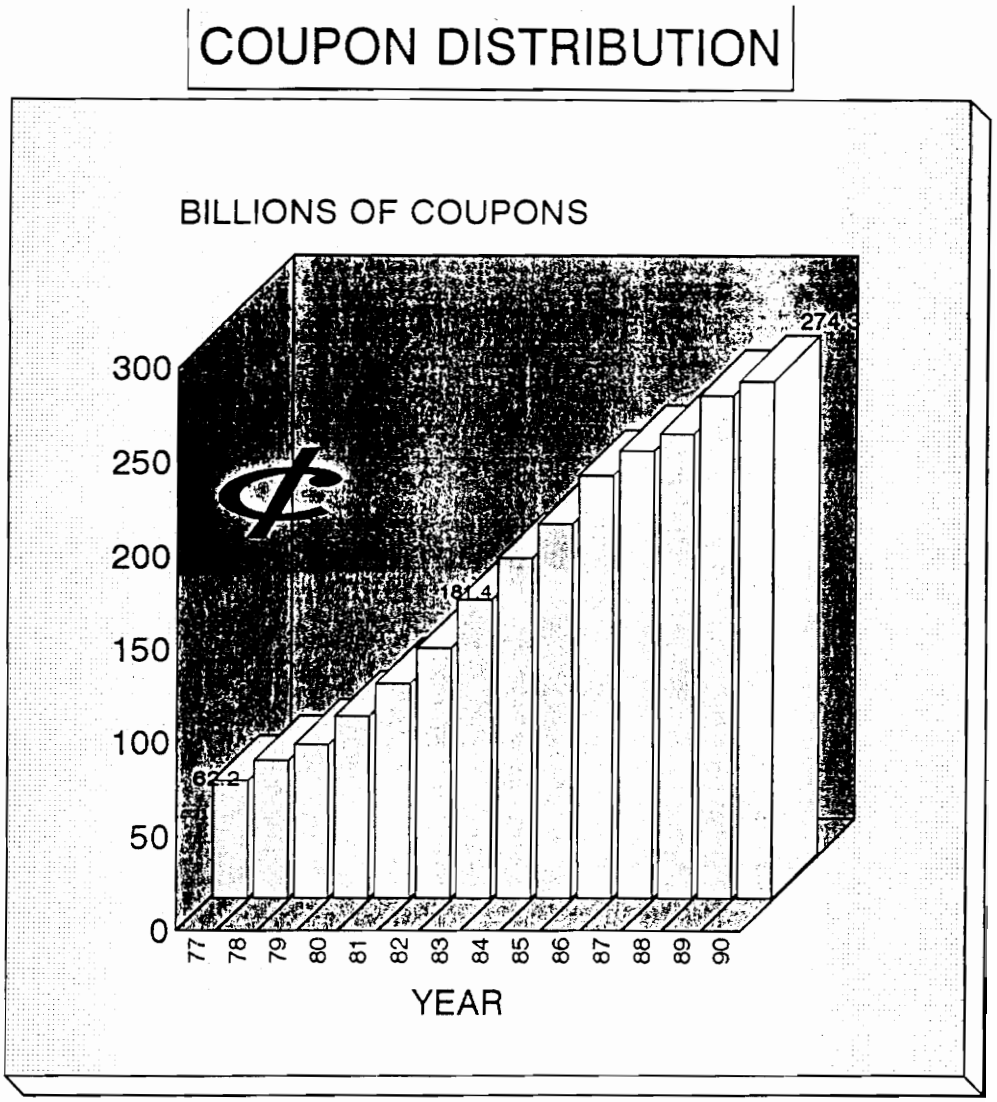
*MAGAZINE
SOURCE: SCHULTZ AND ROBINSON (1982)
SALES PROMOTION ESSENTIALS. ILLINOIS:CRAIN BOOKS

FIGURE 1

Direct mail can allow coupons to gain a broader distribution than free-standing inserts which are not seen by households that do not receive newspapers. Direct mail can be sent in a co-op or a solo mailing (Bowman, 1980). Solo mailing consist of one brand or a group of related brands from the same company. Co-op mailing consists of coupons from a number of different companies collated into one envelope.

More than 270 billion manufacturer-originated coupons were distributed to consumers in 1990, up from only 96 billion in 1980 (Figure 2). According to Schultz et al., (1993), 77 percent of Americans used coupons at least occasionally in 1988 compared to 75 percent in 1984 and only 58 percent in 1971 (Figure 3). Usage tends to be independent of age, income, education, life-style, and gender (Schultz et al., 1993). In 1990, U.S> consumers saved $3.5 billion by redeeming 7 billion coupons (Schultz et al., 1993).

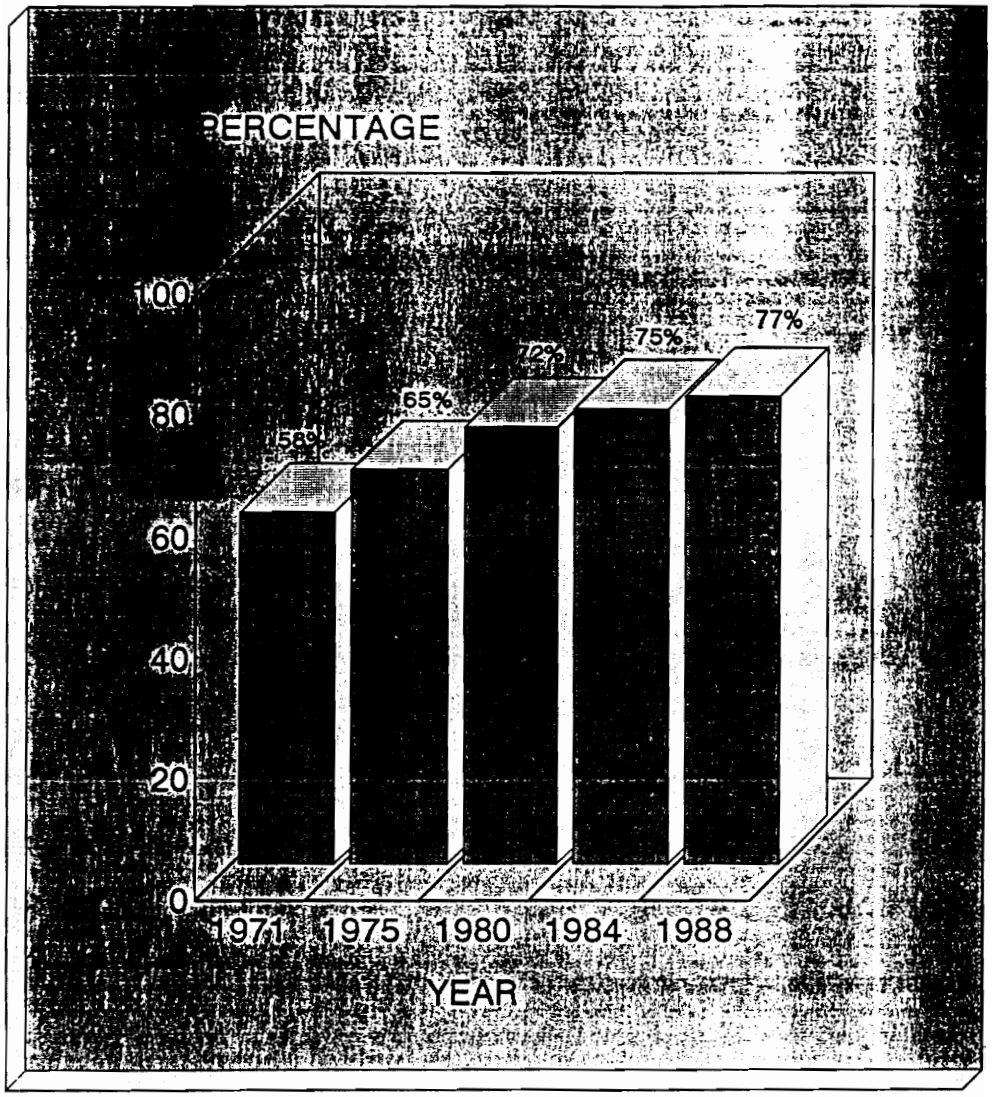
The length of time during which the average coupon could be redeemed has decreased to 5 months in 1990 from 6.8 months in 1987 because companies want consumers to make a prompt purchase (Hume, 1991). Also, limiting the time span during which a coupon can be redeemed may help marketing managers plan better and limit a company's financial liabilities which may be important for accounting reasons (Hume, 1991; Schultz et al., 1993).



Source: Schultz et al., (1993), Sales Promotion Essentials. Illinois. NTC Publishing Group

FIGURE 2

PERCENTAGE OF HOUSEHOLDS USING COUPONS



SOURCE: Schultz et al., Sales promotion Essentials, Illinois:NTC Publishing Group

FIGURE 3

There are a variety of reasons for the increase in the popularity of coupons as promotional tools:

1. Coupons provide a means of distributing a price cut to consumers who have become increasingly price sensitive and less brand loyal.

2. Coupons may make consumers feel that they are getting a good deal on a particular product, thereby causing them to increase consumption.

3. Coupons may encourage new consumers to try a product increasing the value of the brand over the long run (Schultz et al., 1993).

In addition, Robinson (1987) claimed that coupons have been used to hold current users, load current users, and convert triers to regular users. Loading current users is an effective defensive tactic to fend off competitive activity. Cents-off coupons can be an effective device to broaden the customer base.

Statement of the Problem

Restaurants are spending more on advertising and promotional expenses, especially on couponing and restaurant specials (Gordon, 1990; Alva, 1987; Telberg, 1985). Fast food media advertising and promotion costs were $267 per seat in 1988 which was a 19 percent increase from $225 in 1987 (Gordon, 1990). Tougher competition within the food service industry has led to a greater use of promotional strategies designed to build customer traffic. The explosive growth in couponing is bringing about the need to acknowledge couponing and its relationship to customers.

The problem of this study is to examine the relationship between discount coupons and repeat purchase behavior for customers of pizza restaurants. The results of this study would be useful in describing repeat purchases and psychographies of customers which are crucial to the success of the operation.

Objectives of This Study

The study will seek to accomplish the following objectives:

1. To examine the relationship between coupon usage and frequency of purchase.
2. To examine the relationship between pizza coupons and their usage as an encouragement to try a new pizza restaurant.
3. To examine the relationship between psychographic and demographic variables of customers, and pizza coupon usage.
4. To examine the means of distribution for the most frequently redeemed coupons.

Contribution of the Study

Because restaurants spend a great deal on promotions to maintain and gain more market share, there is a need to find out about the effectiveness of their promotion methods. This study will benefit fast food restaurants, especially pizza restaurants, in several areas. The study will present whether the relationship between couponing and repeat purchase behavior of customers exists. Also, the results should be useful to fast food restaurants that utilize coupons as a promotion tactic. The results would also be useful for market segmentation. Marketers will gain more knowledge on demographic and psychographic characteristics of customers. This study will add knowledge to the current literature of couponing in the restaurant industry, which is very limited.

Summary

This chapter presented a discussion of different types of coupon delivery, couponing and pizza restaurants, the statement of the problem, objectives of the study, and the contribution of this study. This study will contribute to the body of knowledge and literature in the area of couponing in the restaurant industry.

CHAPTER 2

REVIEW OF LITERATURE

This chapter examines the prior theoretical evidence and empirical research findings in the field of coupon promotion. This chapter will focus on a literature review of demographic characteristics of coupon-prone consumers, psychographic characteristics, the coupons and their effects on consumers, coupons and redemption rates, coupons and brand loyalty, and coupons and promotion.

Demographic Characteristics of Coupon-Prone Customers

Much research has been done on demographic characteristics of coupon-prone customers. Past research has shown a wife's education to be associated positively with coupon usage (Bawa and Shoemaker, 1987; Narashimhan, 1984). Bawa and Shoemaker (1987) suggested that more educated housewives tend to seek more variety and that wives with a higher level of education are more likely to respond to incentives to change behavior.

Narasimhan (1984) proposed a model of utility maximization predicting that the intensity of coupon usage is related inversely to a household's opportunity cost of time.

He claimed that in order to enjoy the savings from using coupons, the consumer incurs some cost; and the decision to use coupons is made by trading off the savings obtained against the cost of using the coupons. He found coupon usage to be higher for households with a higher level of education and with no children under 18, and lower for households with an employed wife. He argued that more educated housewives are more efficient in organizing their time. He theorized that coupons serve as a price discrimination device to provide a lower price for a particular segment of consumers.

Webster's (1965) study on deal proneness found deal-prone housewives to be older, lighter purchasers of the product class, and more likely to switch brands. Montgomery (1971) reported that the proportion of purchases made with a deal increased with the level of brand switching, greater exposure to media, and for households in which the wife was venturesome and gregarious.

Blattberg et al., (1978) did a study on deal prone segments. They proposed an inventory model in which consumers are assumed to minimize the sum of transaction costs, storage costs, stockout costs, and item price. They showed that the presence of children and the wife's employment have a negative impact on the consumer's ability to take advantage of deals due to time constraints.

Psychographic Characteristics

While facing markets crowded with basically undifferentiated products and services, and a media increasingly cluttered with promotional noise, leading marketers are understanding that emotional appeals invest extra value to their offerings, bringing their products and services into the customer's mind (Eisenhart, 1988). Demographics are about facts: age, sex, race, income, household type.

Psychographics are what is left after demographic factors are held constant and are based on feelings rather than facts (Russell, 1989). Psychographic characteristics are more important to the hospitality industry than manufacturing industries since the hospitality industry is dealing more with services than just selling pure products. Also, the hospitality industry has more customer interaction to produce the products and services than manufacturing industries. Psychographics look beyond the obvious business demographics to place the company ahead of the competition (Eisenhart, 1988). For example, while doing marketing research on customers' new preferences in product and services, a restaurant should gather information not only on customers' demographics but also on psychographic characteristics to take full advantage of facts and feeling about the customers.

Understanding customers' psychographic and demographic characteristics would allow marketers to formulate effective marketing plans and successfully compete in the market place.

Researchers who are concerned with providing more effective and efficient marketing programs have used psychographics to better understand the consumer (Gladwell, 1990). Psychographic research attempts to provide an understanding of the consumers by looking at activities, attitudes, interests, opinions, perceptions, needs and daily life routine, or in other words, life-style characteristics (Wells, 1974; Mayo and Jarvis, 1981). Plummer (1974) explained the widespread use psychographic research as follows: "It tells us things about our customers that most researchers did not really attempt to quantify in the past, when the focus was on the product or on widely used measures of classification such as demographics" (p.34).

According to Lesser and Hughes (1986), psychographies have been used frequently because of the rich descriptive detail they have provided for developing marketing strategies. In 1977, a survey of AMA membership by the Commission on the Effectiveness of Research and Development for marketing Management found that 37.9 percent of the external firms supplying research to the responding corporations used psychographics frequently (Myers, Greyser, and Massy, 1979, p.211).

Mayo and Jarvis (1981) stated that life-style characteristics reflect personality traits and contend that the study of such characteristics explain more about consumer behavior than the measuring devices of clinical psychology. The use of psychographics can provide detailed profiles of consumers which can enable marketers to visualize the people they are trying to reach (Schewe and Calantone, 1978).

Coupons and Their Effects on Consumers

Ward and Davis (1978) claimed that coupons influence consumers through their redemptive value and their informational value (i.e., informing the consumers of the existence of the product). They constructed a regression model with consumption as the dependent variable and income, saving through coupons, demographic variables, and price as independent variables. They broke down the increase in consumption into two parts: price effect and informational effect. From the empirical estimates of the regression model, they showed that both effects exist. Dodson et al., (1978) examined the impact of retracting a deal on brand loyalty. They used self-perception theory in their study to predict the effect of deal retraction. Self-perception theory postulates that consumers search for explanations for their behavior. When a consumer purchases a brand on deal, the deal incentive

can become a more likely explanation for the purchase than a favorable personal attitude toward the brand. Dodson et al., (1978, p.74) stated:

> Based on self-perception theory, individuals who make purchases on deals, or when some other purchase incentive is offered, will be uncertain whether their behavior is attributable to a liking of the purchased product or a desire to take advantage of the incentive. Thus, retracting an incentive reduces the likelihood of repurchase because an incentive is no longer present. In contrast, when purchase occurs in the absence of any incentive, it is likely to be attributed to a liking for the product and this inferred positive attitude will direct future behavior, increasing the probability of repurchase.

They concluded that media-distributed coupons and cents-off deals may encourage brand switching. However, the retraction of a deal had a significant effect on the incidence of brand repeat purchasing. Retraction of media-distributed coupons undermined repeat purchasing among persons who had switched to take advantage of the deal as well as those who had purchased the brand before the deal. Thus, retraction of media-distributed coupons resulted in lower loyalty.

Teel et al., (1980) conducted a survey of female heads of household to study the characteristics of coupon users. The focus was on identifying the profile of coupon users who would try a new product with a coupon. They reported, based on the survey results, that coupon users have significantly larger family sizes and larger incomes, and are significantly younger

than nonusers of coupons.

A 1980 Nielsen survey found that usage of coupons increased with income, age, grocery expenditure, and household size. Neslin and Shoemaker (1983) described a computer based simulation model that can be used to calculate the profitability of couponing.

Bearden et al., (1980) reported the results of an exploratory study of female shoppers influenced to try a new grocery products by sales promotions coupons. The findings indicated that this consumer group represents a sizable market segment with many unique characteristics. The female shopper influenced to try new products by coupons tended to be younger, have a larger family income, and have a larger family than respondents whose new product purchases were never influenced by coupons. Coupon susceptible consumers were described as redeeming more coupons, perceiving more dollar savings from coupon redemptions and enjoying collecting and redeeming coupons more than the non-susceptible segment.

Coupons and Redemption Rates

A major determinant of coupon profitability is the prior purchase history of those who redeem the coupons (Kuehn and Rohloff, 1967; Aaker, 1973; Neslin and Shoemaker, 1987). Shoemaker and Tibrewala (1985) claimed that if the coupon is

primarily redeemed by those who are regular users of the brand, the manufacturer's profitability from the coupon promotion is greatly reduced.

Bauer's (1960) theory of perceived risk suggested that there is little or no risk in using the coupon for a regular buyer of the brand. He claimed that those who have extensive experience with the brand, have trust in its performance, and know there is little chance of being disappointed.

Although there has been a significant amount of published research on coupon redemption rates, (Reibstein and Traver, 1982; Bowman, 1980; Ward and Davis, 1978), less attention has been devoted to the hospitality industry and more on manufacturer's coupons. These studies provide a basis for predicting the aggregate redemption rates of future promotions as a function of the coupon characteristics such as face value, mode of delivery, and size of the coupon.

Klein (1985) reported some generalizations from several coupon field experiments: increased face-value leads to more incremental sales, and earlier redemptions are more likely to represent incremental sales. Shoemaker and Tibrewala (1985) measured consumers' self-reported likelihood of using either a 15-cent or 50-cent coupon for four brands: Tide, Kellogg's, Aim, and Joy. They found that loyal users of the brand were more likely to redeem a coupon for that brand. They found stated intentions to redeem to be much higher for those who

were loyal to the promoted brand. They also found that an increase in face value had only a small effect on the redemption rates of loyal brand buyers, but produced a substantial percentage increase in redemption among the infrequent buyers or nonbuyers of the brand.

Neslin and Clarke (1987) measured the brand-use profile for coupon redeemers using three classifications-- first trail of the brand, rarely buy the brand, and almost always buy the brand-- for 59 brands. The brands included food products, household goods, and health and beauty aids. A telephone survey was designed to solicit redemption and brand-use-profile information. They found that redeemer brand-use profiles differed by geographic area and redemptions occurred roughly one month after coupon distribution. They claimed that a coupon program for a particular brand is profitable to the extent that the redeemer brand-use profile leans toward new triers and rare users of the brand.

Brand Loyalty

According to Watkins (1986), a brand could be defined as an identifiable version of a product which a consumer could perceive as being distinctive in some way from other versions of the product. Berry et al., (1988) claimed that a strong brand should possess distinctiveness (distinguishable from its

competitor), relevance (conveys the essence of the service benefit), memorability (easily recalled), and flexibility (not restrictive in nature for any foreseeable expansion plans).

Jacoby and Kyner (1973) expressed a conceptual definition of brand loyalty in a set of six conditions. These are that brand loyalty is "(1) the biased (i.e, nonrandom), (2) behavioral response (i.e, purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) a function of psychological (decision-making, evaluative) processes" (Jacoby and Kyner, 1973, p.2).

Exter (1986) claimed that products with the highest loyalty are those that customers have emotional attachments to, derive social standing from, or use in or on the body. He argued that loyalty is increasingly harder to achieve and maintain because of intense competition.

Neslin et al., (1985) stated that a consumer could be classified as loyal to a particular brand if that brand accounted for a higher percentage of his/her purchases than the average consumer who purchased the brand at least once.

Brand Loyalty in the Hospitality Industry

Most of the studies on brand loyalty in the hospitality industry were in the lodging industry not in the restaurant industry. A definition of brand loyalty in the context of the lodging industry is "guests returning to a given company's hotel properties, wherever they are located" (Jarvis and Mayo, 1986, p.73). In the lodging industry, many chain marketing strategies employ the frequent stay program.

Lewis (1990) questioned the long-term effectiveness of frequent quest programs. He noted that only 2 percent of business travelers, according to a study conducted by the U.S. Travel Data Center, considered frequent guest programs important when selecting a hotel. Lewis felt that frequent guest programs did not expand the market and did not address the real needs of travelers.

On the contrary, McCleary and Weaver (1991) found that frequent guest programs were important when deciding upon lodging accommodations. Respondents were considered to have a high level of loyalty to a particular chain if they indicated that the elimination of the chain's frequent guest program would have no effect on their choice of lodging accommodation.

In addition, Davis (1992) did a study on the extent of brand loyalty exhibited by business travellers towards the

lodging product. A survey of business travelers was used to determine if this group of consumers exhibited brand loyalty in the lodging industry. The results determined that the respondents exhibited behavior that suggested partial brand loyalty towards the lodging product.

Coupons and Brand Loyalty

There has been numerous research done on coupons and brand loyalty. According to Cunningham (1956), loyalty-prone purchasing behavior would be evidenced by consistent high loyalty to brands in a number of product classes.

Cunningham (1956) studied households' loyalty to their favorite brand (measured as the share of purchases devoted to the favorite brand) in seven product classes. He concluded that loyalty proneness across product classes does not exist to a significant degree. Massy et al., (1968) conducted a similar analysis using purchase data for beer, coffee, and tea. They found the same results as Cunningham (1956).

Blattberg et al., (1976) conducted a study on buying consistency across product classes. In their analysis, heavy buyers were classified into one of 16 purchase strategy categories such as loyal buyers of national brands or deal-oriented buyers of private label brands.

Of 108 households that bought both aluminum foil and

waxed paper, 35 percent used the same purchase strategy in both classes. Blattberg et al., (1976) also examined the extent to which buyers used similar but not identical buying strategies for the two pairs of products. They found greater consistency in buying strategies than was found in earlier studies. The empirical results from these studies suggest that individual households do not engage in highly consistent behavior when purchasing in different product classes.

Jones and Zufryden (1980) used logit models to examine the relationship between brand choice and characteristics of the prior purchase, such as whether it was a deal purchase. They concluded that a consumer who purchases a given product without a deal incentive is more likely to remain a loyal purchaser of that given product than one who relied on deal incentives to purchase a given product.

Guadagni and Little (1983) also used logit models which incorporated a loyalty variable that increased with any purchase of the brand and a prior promotional purchase variable. They concluded that a customer purchasing a brand-size on promotion is less likely to repurchase it than if the purchase has been made without promotion.

However, Neslin and Shoemaker (1989) argued that individual consumers do not reduce their purchase probabilities after a promotion purchase. They also claimed that promotions may act as a temporary device to attract a

disproportionate number of buyers with low purchase probabilities for the promoted brand.

Bawa and Shoemaker (1987) compared the profiles of households in the coupon-prone and non-coupon-prone segments. Their findings suggested that coupon-prone households tend to have a more educated husband and a somewhat more educated wife. Their findings are consistent with the empirical finding of Narasimhan (1984) about wives' education. Also, they concluded that better educated households seek more variety, have lower substitution costs, and maker greater use of coupons.

Coupons and Promotions

Consumer promotions constitute a significant part of the marketing effort of product purchasing (Neslin et al., 1985). One potential consequence of promotions is their tendency to accelerate consumer purchases. In response to a promotion, consumers may buy more quantity of the product category, or buy at an earlier time (Blatterberg et al., 1981; Shoemaker, 1979; Wilson et al., 1979).

Blair (1982) suggested that most coupons do not increase long-term sales. Neslin et al., (1985) studied the effect of coupons and other promotions on purchase acceleration. They found a positive association between use of coupons and larger

purchase quantities, but loyal purchases are not necessarily more accelerated than nonloyal purchases. They claimed that coupons, local retailer advertising, and price cuts can all increase quantity. However, coupons by themselves generally accelerate quantity more effectively than local advertising.

Shoemaker (1979) compared promotional to nonpromotional purchases in terms of quantity bought and elapsed time from the previous purchase. His findings suggested that promotions are more likely to be associated with increased quantity than with shorter interpurchase times.

Aaker (1973, p.597) tested the hypothesis that "aggregate long-run patterns of families familiar with a given brand (non-new triers) are not affected by interim promotion purchases of the same brand." His findings suggested that repeat buying for those who had consistently bought the promoted brand is unlikely to be affected by coupon redemption.

Klein (1981) conducted a number of coupon experiments in which coupons were sent by direct mail; he contrasted sales of the control group with sales of the experimental (couponed) group. The results showed that the cumulative difference in sales between the two groups generally became stable within several weeks after the coupon drop. This finding suggested that coupon redemption had no long-term effects on repeat purchasing. Klein (1981) claimed that the early coupon

redemptions were the ones that appeared to be associated with incremental sales.

Irons et al., (1983) analyzed data from 60 coupon experiments conducted over a three year period. They found incremental sales to be related positively to coupon face value and average purchase quantity. They claimed that a promotion could result in a large number of redemption purchases but still be unprofitable if those purchases would have been made anyway.

Bawa and Shoemaker (1987) examined the effects of a direct mail coupon on brand choice behavior. They found that the households most likely to redeem a direct mail coupon were ones that were most likely to buy the brand in the first place. The findings suggested that consumers returned to their normal or prepromotion brand choice behavior immediately after making a coupon redemption or promotion purchase.

These findings on coupon promotions and consumer promotions suggested that coupons for a specific brand are more likely to be redeemed to the extent that the consumer has a higher prior probability of purchasing the brand. In any case, purchase acceleration can cause changes in market share and have important consequences concerning the ultimate profitability of the promotion (Neslin and Shoemaker, 1983).

Coupons in the Restaurant Industry

The frequency of couponing and discounting in restaurants has increased considerably in recent years (Anonymous, 1985; Lefever and Morrison, 1988; Bowman, 1990). Fast-food chains are reducing prices through coupon and other promotions by 30 to 50 percent or more in order to hold their market shares (Alva, 1987).

According to "Business Barometer" (1992), in an effort to keep dining-out expenses down, in the last two years consumers have resorted to a number of cost-saving devices (Table 1). The number one tactic is looking for coupons (49%), followed by ordering water instead of beverages (45%), skipping desserts (36%), and ordering less expensive entrees (34%).

Some fast-food restaurants use coupons as brand builders and as a stimulation technique for building brand awareness (Lefever and Morrison, 1988; Alva, 1987). At Arby's one out of about five transactions is coupon-related (Alva, 1987). Dunkin' Donuts has drawn 10 percent to 12 percent of systemwide sales with couponing activity (Feltenstein, 1991). Little Caesar's has been a pioneer of deep discounts; its "buy one, get one free" pizza coupon promotions have been the method of its success (Alva, 1987).

TABLE 1
PERCENTAGE DOING MORE
TO REDUCE DINING OUT EXPENSES IN 1991-1992

- LOOK FOR COUPONS: 49%
- ORDER WATER INSTEAD OF BEVERAGES: 45%
- SKIP DESSERTS: 36%
- ORDER LESS EXPENSIVE ENTREE: 34%
- MORE TAKE-OUT INSTEAD OF EAT-IN: 32%
- SKIP COFFEE: 27%
- SNACK INSTEAD OF MEAL: 27%
- ORDER FEWER SIDE DISHES: 26%
- FAST FOOD INSTEAD OF SIT-DOWN: 26%
- BREAKFAST INSTEAD OF DINNER: 23%

SOURCE: RESTAURANT BUSINESS 1992

A coupon's effectiveness is proportional to the strength of the product, and a coupon cannot revive a weak or dying menu item (Lefever and Morrison, 1988). An effective couponing program does prove profitable as long as the advertising portion of the coupon attracts the customer (Feltenstein, 1991).

Couponing via direct mail is gradually replacing the more traditional media vehicles because it permits marketing executives to confirm results through redemption counts, as well as measure the cost of the program against actual revenues generated (Andereck, 1988). Some of restaurant companies use a direct mail strategy to mail their coupons to lure diverse markets (Carlino, 1989). Today's direct mail coupons are personal and attractive as opposed to occupant address labels (Andereck, 1988). Although direct mail is one of the most expensive delivery methods, it consistently attracts the most new customers (Anonymous, 1983). Many restaurant executives believe that it is easier to reach a defined target base through the mail than through general circulation newspapers; and direct mail coupons have a higher rate of redemption (Schoifet, 1985).

Promotions can be done in a variety of forms such as restaurant specials and senior discounts. However, the most popular approach in 1989 was couponing, which represented 38 percent of all restaurant deals and 42 percent of all fast

food promotions (Gordon, 1990). Couponing is especially prevalent in pizza, sandwich, and chicken restaurants. Table 2 presents the percent of restaurant occasions on which promotions were used for quickservice, midscale, and upscale restaurants in 1989. Coupons represent the highest method of promotional deals that are used by customers in quickservice restaurants. Figure 4 represents the percentage of meal orders that were promotional deals between 1990 and 1991. According to Figure 4, restaurants in all categories have been using more promotional deals such as coupons, frequent diner programs, and specials to entice customers.

Table 2

Different Types of Promotions

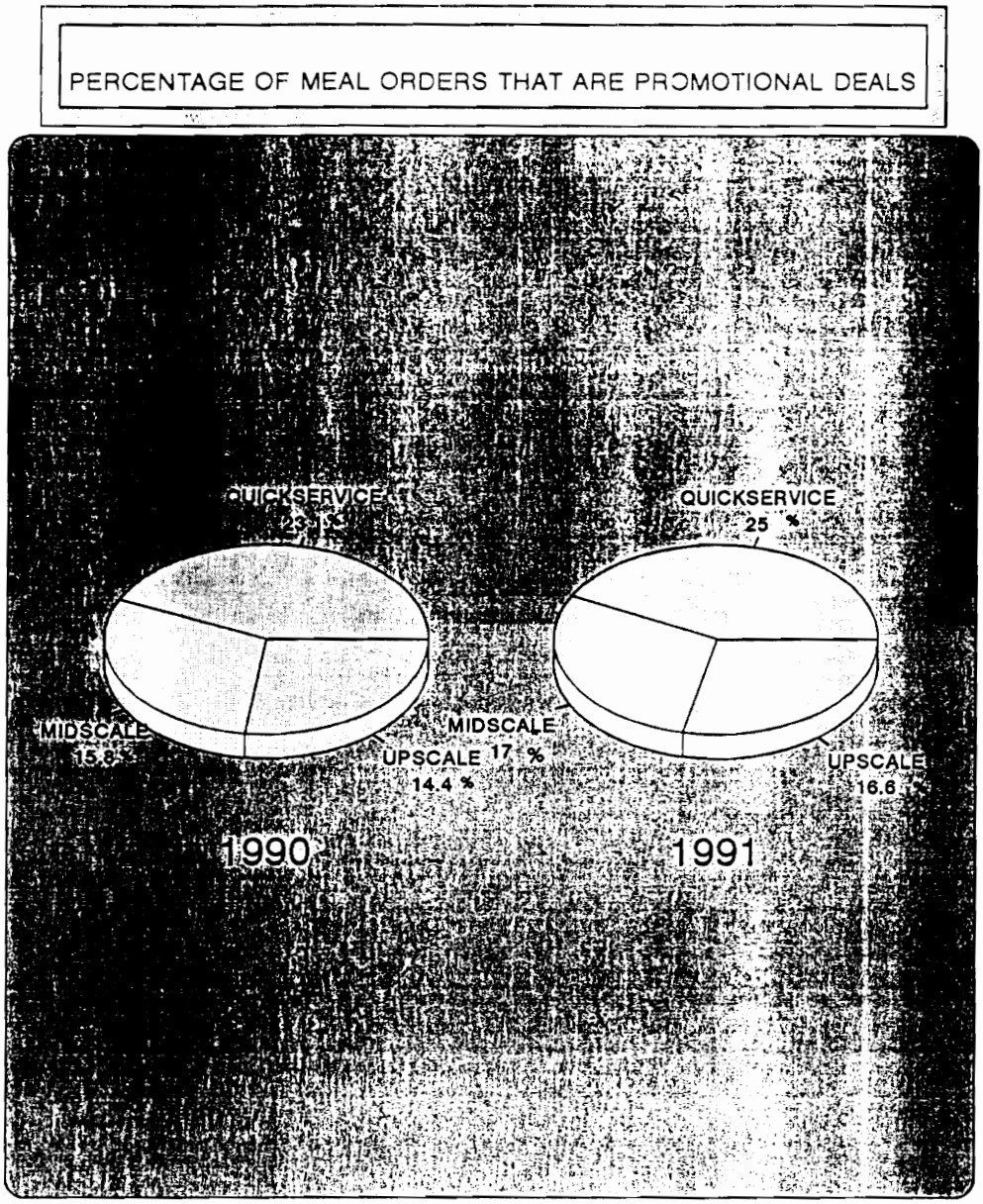
Types of Promotions Used	Percent of restaurant occasions on which promotions were used		
	Quickservice	Midscale	Upscale
Total	21%	14%	13%
Total Coupons	10	3	4
-Newspaper/Magazine	4	1	1
-By direct mail	3	1	1
-All other*	3	1	2
Restaurant special	6	5	5
Buy-one-get-one-free/ Combination deals	3	1	2
Senior discount	2	3	1
All remaining types**	3	2	2

*Includes coupons received in the store, at another place and all remaining.

**Includes employee discounts, merchandise and other types.

Note: Multiple use of promotions may occur in one transaction. Therefore, the sum of the types of promotions may be more than the total.

Source: NPD/CREST Annual Household Report 1989.



SOURCE: NATIONAL RESTAURANT ASSOCIATION, 1992

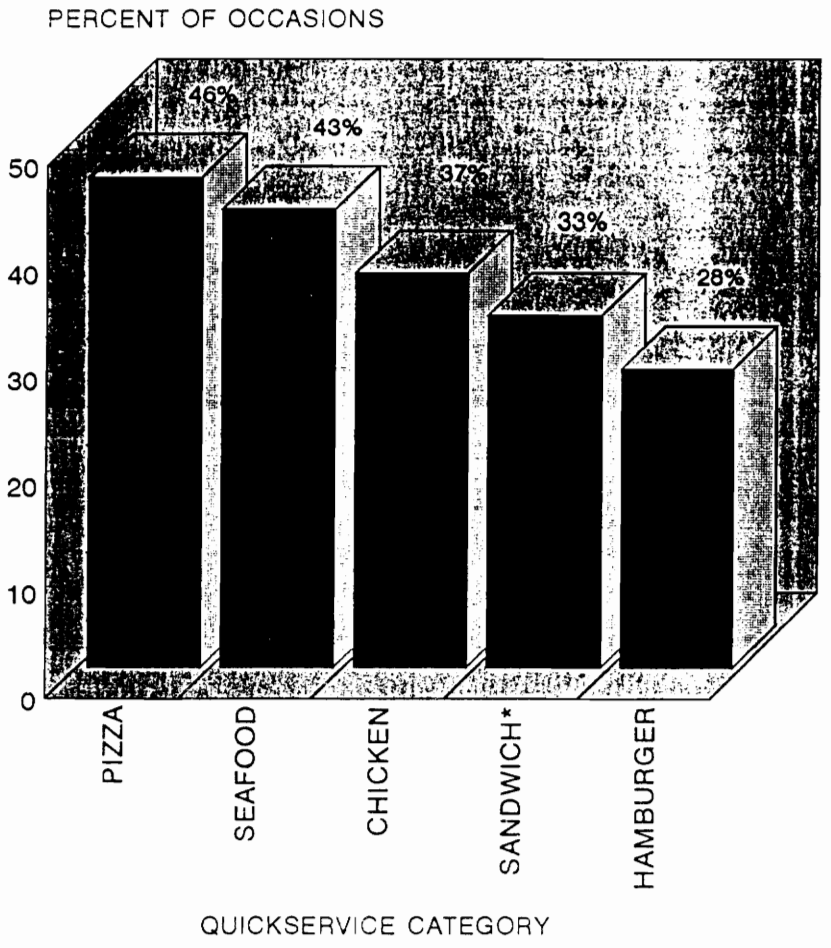
FIGURE 4

Couponing and Pizza Restaurants

Several types of fast food restaurants offer many deals. In 1989, pizza restaurants had the highest percentage of deal occasions (36 percent), followed by seafood restaurants (28 percent), chicken places (27 percent), Mexican establishments (25 percent) and hamburger restaurants (21 percent) (Gordon, 1990). Figure 5 represents by category the percent of occasions for which a deal was used in quickservice restaurants in 1992. Promotional activity was heaviest at quickservice pizza and seafood restaurants in 1992, with deals accounting for more than 4 out of 10 occasions at these establishments (Iwamuro, 1993).

According to National Restaurant Association CREST surveys (1990), pizza is the most popular concept for 35 to 44 year olds, families with children, and children 6 to 17 years old. According to Iwamuro (1993), children under the age of 18 are becoming increasingly sophisticated consumers and are influencing household purchases. This group accounted for two out of 10 orders of pizza (Iwamuro, 1993). Customers over 50 are least likely to order pizza (Iwamuro, 1993). Three-fourths of all pizza is consumed at dinner, and forty-five percent of all pizza purchased from restaurants is eaten on Friday and Saturday (Gordon, 1990).

PERCENTAGE OF OCCASIONS ON WHICH A DEAL WAS USED BY CATEGORY OF QUICKSERVICE RESTAURANT, 1992



*HAMBURGER NOT INCLUDED
SOURCE: NATIONAL RESTAURANT ASSOCIATION, 1993

FIGURE 5

Summary

The chapter gave an overview of coupon usage. The review of the literature covered psychographic characteristics, coupons and their effect on consumers, brand loyalty, promotions, and demographics of consumers using coupons. Much research has been conducted on manufacturer's coupons, but not on coupons that were distributed from restaurant companies.

Marketers will gain more knowledge about demographics, psychographics and purchase behavior of pizza coupon users as a result of this study. Marketers can utilize the information to earn a reasonable profit after the discount since the number of coupons distributed by restaurant companies has grown dramatically (Peckham, 1985).

CHAPTER 3

METHODOLOGY

This section presents the research questions and hypotheses, followed by the research design, survey questions, and method of data analysis.

Research Questions

1) Is there a relationship between coupon usage and frequency of purchase for pizza restaurants in general?
2) Is there a relationship between pizza coupon usage and willingness to try new restaurants?
3) Is there a relationship between pizza coupon usage and age?
4) Is there a relationship between pizza coupon usage and occupation?
5) Is there a relationship between pizza coupon usage and income?
6) Is there a relationship between pizza coupon usage and family size?
7) Is there a relationship between pizza coupon usage and education?

8) Is there a relationship between psychographic characteristics and pizza coupon usage?
9) Which types of coupons do customers prefer to redeem when coupons were given in the form of a dollar off, percentage off, or given to purchase combination meals?
10) Which means of distributing coupons, newspaper, direct mail, or other sources such as in the store, is the most effective for promotion?

Research Design

Population

The study's population consisted of households in Blacksburg, Virginia. In 1993, Blacksburg's population was approximately 35,000 according The League of Women Voters of Montgomery County, Virginia (1994). Blacksburg, Virginia was chosen due to the ease of obtaining addresses and attempting to follow up by resending the questionnaires. A systematic random sampling will be used for this study. In systematic sampling, every kth element in the total list is chosen for inclusion in the sample. Random sampling allows a researcher to make relatively few observations and generalize from those observations to a much wider population (Babbie, 1992).

Addresses of households were obtained from the 1993-1994 local telephone directory. The total number of addresses in the telephone direct that were from Blacksburg, Virginia were 24,143. A mail survey was sent randomly to every 48th name in the directory that had a Blacksburg, Virginia address. The sample size for this study was 500 people. A response from at least 150 respondents was sought. A postage-paid envelope, and a quarter were enclosed with the survey to encourage participation. The study used Virginia Polytechnic Institute and State University letterhead and a cover letter to indicate the purpose and value of this research. The outline of the questionnaire will be discussed in the next section.

Development of the Survey Instrument

The questionnaire was divided into three parts with a total of 30 questions (Appendix I). Section I attempted to obtain general information on pizza consumption and pizza coupon usage. Question 1 asked whether the household received pizza coupons during the last two months. The answer to this question indicated if the respondent received any pizza coupons through any means.

Question 2 and 3 dealt with general information about the frequency of pizza consumption at a pizza restaurant or by having pizza delivered at home. Questions 4 through 6 dealt

with pizza coupon usage and frequency of this usage. Question 7 dealt with the number of times the respondent visited a pizza restaurant and the number of times coupon were used in purchase in the previous two months. Question 8 dealt with: 1) the number of times the respondent had a pizza product delivered or taken out to his/her home and 2) the number of times coupons were used in a purchase. Questions 9, 10 and 11 attempted to find out the source of the coupons and the most popular source of redeemed pizza coupons.

Section II dealt with how the respondent used the pizza coupons, whether pizza coupons increased pizza purchase, purchase of new products offered by the pizza restaurant, and visits to a new pizza restaurant. Also, psychographic questions were asked in this section. Psychographic questions were asked to find out the price sensitivity of the respondents. Respondents were asked to rate their answer on a five point Likert-type scale. The points on the scale were: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree.

Section III dealt with general demographic information concerning the respondents' gender, age, number of children, marital status, occupation, and income level. This information was used to answer the research questions and provide a general demographic profile of the sample.

The Pre-test of the Questionnaire

The questionnaire for this study was a self-administered instrument which probed demographic variables, psychographic variable, coupon usage, and purchase behavior. The questionnaire was constructed to gather information to answer the research questions. Pre-test questionnaires were given to 20 graduate students in the Department of Hospitality and Tourism Management at Virginia Polytechnic Institute and State University for constructive criticism and recommendations for better comprehension and layout. The survey was adjusted based on the pre-test results.

Research Hypotheses and Data Analysis

The following paragraphs state the research hypotheses and how they will be addressed using the data from the survey instrument. A type I error level of 0.05 was used throughout the study. The Statistical Package for the Social Sciences (SPSS) was used to perform two mean t-tests, ANOVA, chi-square, frequencies, and to calculate means, and standard deviations.

In the restaurant industry, the number of meals purchased with the aid of a discount rose to 11.1 percent of all meals in 1985, a 9.8 percent increase over the 1984 level (Schoifet,

1985). Coupons have been used to attract new customers and convert them to regular customers (Robinson, 1987).

The hypotheses for this study, based on the reviewed literature, are as follows:

Hypothesis 1: There is a relationship between pizza coupon usage and frequency of purchases.

Statistical procedure: Two mean t-test, and correlation

Hypothesis 2: There is a relationship between pizza coupon usage and the willingness to try a new pizza restaurant.

Statistical procedure: Two mean t-test

Pizza is the most popular concept for 35 to 44 year olds and families with children (Restaurants USA, 1990); customers over 50 are least likely to order pizza. Frequent users of a brand will be more likely to redeem a brand's coupon. These two statements lead to the next hypothesis:

Hypothesis 3: There is a relationship between pizza coupon usage and age.

Statistical procedure: ANOVA

Bawa and Shoemaker (1987) claimed that coupon-prone households tend to have a more educated husband and somewhat more educated wife. They concluded that better educated households seek more variety, and make greater use of coupons. Their findings are consistent with the empirical findings of

Narasimhan (1984) about wives' education. He found coupon usage to be higher for households with a higher level of education and with no children under 18. He argued that more educated housewives are more efficient in organizing their time. Teel et al., (1980) reported that coupon users have significantly larger family sizes and larger incomes and are significantly younger than nonusers of coupons.

Thus, the hypotheses that derived from the above literature are as followed:

Hypothesis 4: There is a relationship between occupation and frequency of pizza coupon usage.

Statistical procedure: ANOVA

Hypothesis 5: There is a relationship between income and frequency of pizza coupon usage.

Statistical procedure: ANOVA

Hypothesis 6: There is a relationship between family size and frequency of pizza coupon usage.

Statistical procedure: ANOVA

Hypothesis 7: There is a relationship between education level and frequency of pizza coupon usage.

Statistical procedure: ANOVA

Hypothesis 8: There is a relationship between psychographic behavior and coupon usage.

Statistical procedure: Correlations

According to Howard (1994), quick service restaurants have found the strategy of packaging combination meals an effective way to increase customer traffic. Chains offering combination meals estimate that these meals account for about 20 percent of sales. Pizza Hut introduced 'Meal Deals' to its menu in 1993. The packaged meal offers products at about a 10 to 15 percent discount compared to purchasing the items individually (Howard, 1994). According to Vogel (1990), Pizza Transit offers pizza coupons that give discounts for two 14 inch pizzas with two topping for $12.49. Also, the most effective coupon offers have proved to be sizable discounts, money off, and use of the word 'Free' in advertising. Thus, the next hypothesis is:

Hypothesis 9: Customers prefer to redeem coupons when coupons were for purchasing combination meals, not given in the form of dollars off the product or a percentage off the whole meal.

Statistical procedure: Frequency

According to Andereck (1988), couponing via direct mail is gradually replacing the more traditional media vehicles. Carlino (1989) stated that some restaurant companies use a direct mail strategy to mail their coupons to attract a diverse market. Many restaurant executives believe that it is easier to reach a defined target base through the mail than

through general circulation newspapers and that direct mail coupons have a higher rate of redemption (Schoifet, 1985). Thus, the next hypothesis is as followed:

Hypothesis 10: Pizza coupons were most often redeemed when they were distributed through direct mail.
Statistical procedure: Frequency

ANOVA and two mean t-test were used to determine if there were significant differences between the two relationships in each of the hypothesis. Teel et al., (1980), McCleary and Weaver (1991), and Davis (1992) conducted their studies successfully using t-tests of mean differences to analyze the results. General descriptive statistics such as frequencies, means, and correlations will be calculated to describe the sample.

Summary

This chapter presented methodology and a conceptual overview of the research. The population was identified as the households in Blacksburg, Virginia. The data collection method used was a mail survey.

The study will attempt to test the hypotheses and answer the research questions stated earlier. The results of descriptive analyses and hypotheses testing of the data are presented in the next chapter.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

INTRODUCTION

The purpose of this chapter is to present the relevant data collected with the survey instrument. After the response rate has been discussed, a demographic profile of the respondents will be given. Then descriptive statistics for each question are provided, followed by the analysis of the hypotheses. The percentages on the tables may not add up to 100% due to rounding.

Response Rate

A total of 500 questionnaires were sent out to the population of Blacksburg, Virginia. The list of addresses was randomly selected from the 1993-1994 local telephone directory. Seventy-one questionnaires, which accounted for 14.2 percent, were returned due to an invalid addresses or names. Out of a total of 429 questionnaires, 174 questionnaires were returned, which accounted for 40.56 percent. Out of 174 questionnaires, 173 questionnaires were usable (99.43 percent). Quarters were sent along with the questionnaires to encourage the return. One of the respondents sent a quarter back with the response.

Demographic Profile of Respondents

As shown in Table 3, females represented 58.5 percent of the total respondents. Two of the respondents (1.2 percent) did not specify their gender in the survey. Table 4 presents the marital status of the respondents. Fifty three percent of the respondents were single. One of the explanations for a high number of single people is because Blacksburg, Virginia could be considered as a university town. More than 65 percent of the respondents did not have children age 18 and under living in their home (Table 5). The percentage for respondents who have one child accounted for 12.9 percent which is the same percentage as those who have two children. According to Table 6, the majority of respondents' ages were between 18 to 25 years old (46.2 percent) because of the university town sample. Age 36 to 45 ranked second (16.4 percent). The minority of the respondents fell in the 46 to 55 years category (9.9 percent).

Table 7 presents the education levels of the respondents which are relatively high, with 67.6 percent having at least attended or graduated from college. Only 1.2 percent of the respondents did not finish high school.

According to Table 8, the number one occupation of the respondents was student (49.7 percent), followed by professional (26.1 percent). The occupation that was

Table 3

Frequency and Percentage of Respondents' Gender

Gender	Frequency	Percentage
Male	71	41.5
Female	100	58.5
Total	171	100.0

Missing Cases 2

Table 4

Frequency and Percentage of Marital Status

Status	Frequency	Percent
Single	91	53.5
Married	79	46.5
Total	170	100.00

Missing Cases 3

Table 5

Frequency and Percentage of Number of Children age 18 and Under

Children In Home	Frequency	Percent
0	112	65.5
1	22	12.9
2	22	12.9
3	13	7.6
4	1	0.6
5	0	0.0
More than 5	1	0.6
Total	171	100.0

Missing Cases 2

Table 6

Frequency and Percentage of Respondents' Ages

AGE	Frequency	Percent
Less than 18	0	0.0
18-25	79	46.2
26-35	25	14.6
36-45	28	16.4
46-55	17	9.9
Over 55	22	12.9
Total	171	100.0

Missing Cases 2

Table 7

Frequency and Percentage of Respondents' Education Levels

Education	Frequency	Percent
Did Not Finish High School	2	1.2
High School	53	31.2
College Degree	65	38.2
Graduate College Degree	50	29.4
Total	170	100.0

Missing Cases 3

Table 8

Frequency and Percentage of Respondents' Occupations

Occupation	Frequency	Percent
Professional	43	26.1
Student	82	49.7
Retired	7	4.2
Housewife	9	5.5
Bluecollar	1	0.6
Artist	5	3.0
Other	18	10.9
Total	165	100.0

Missing cases 8

categorized as 'other,' which consisted of purchasing, secretary, and library assistant, accounted for 10.9 percent. Their self-reported occupations were reflected in their annual incomes, with 37.7 percent having reported earnings of less than $15,000 (Table 9). However, 14.5 percent of the respondents reported earnings to be more than $75,000. About 12 percent reported the range of their income to be $45,001 to $55,000.

According to Table 10, the majority of the respondents' racial or ethnic backgrounds belonged to the White or Caucasian category (85.8 percent), followed by Asian (7.1 percent), and Black (5.3 percent). One of the respondents reported that he belonged to the Native American category.

Descriptive Statistics of the Sample

This section presents the responses of each question in terms of frequency and percentage. Section I of the survey asked for the frequency of pizza coupons received and the frequency of pizza coupons used. Section II of the survey asked for the degree of agreement or disagreement regarding questions concerning the usage of pizza coupons and psychographic variables.

Table 9

Frequency and Percentage of Respondents' Incomes

Income	Frequency	Percent
Less Than $15,000	60	37.7
$15,001 - $25,000	9	5.7
$25,001 - $35,000	15	9.4
$35,001 - $35,000	14	8.8
$45,001 - $55,000	20	12.6
$55,001 - $65,000	11	6.9
$65,001 - $75,000	7	4.4
More Than $75,000	13	14.5
Total	159	100.0

Missing Cases **14**

Table 10

Frequency and Percentage of Respondents' Ethnicity

Ethnic	Frequency	Percent
Black/African American	9	5.3
White/Caucasian	145	85.8
Asian	12	7.1
Hispanic	2	1.2
Other	1	0.6
Total	169	100.0

Missing Cases 4

Table 11 summarizes the responses from question 1. This question asked the respondents whether they received pizza coupons during the last two months. More than 92 percent reported that they received pizza coupons during that time period.

Table 12 reports the number of times that respondents ate at a pizza restaurant during the last two months. According to Table 12, 33.5 percent of the respondents did not eat at a pizza restaurant, 17.9 percent ate at a pizza restaurant once, and 12.7 percent ate at a pizza restaurant twice. There were 3.5 percent of the respondents who ate at a pizza restaurant more than 10 times.

The frequencies of the responses for question 3 are presented in Table 13. Question 3 asked the respondents how often they had pizza delivered to their home or picked up pizza to eat at home in the last two months. According to Table 13, 19.7 percent never had pizza delivered to their home; 19.1 percent had pizza delivered to their home once; 15.6 percent had pizza delivered twice; 4.6 percent of the respondents had pizza delivered or picked up pizza to eat at home more than 10 times.

Table 14 shows the frequencies and percentages regarding the usage of pizza coupons during the last two months. Over 65 percent of the respondents used pizza coupons when purchasing pizza during the last two months.

Table 11

Frequency and Percentage of Respondent Who Received Pizza Coupons

Received Pizza Coupons	Frequency	Percent
Yes	160	92.5
No	13	7.5
Total	173	100.0

Table 12

Frequency and Percentage of Respondents Who Eat Pizza at Pizza Restaurants

Eat Pizza at Pizza Restaurants	Frequency	Percent
0	58	33.5
1	31	17.9
2	22	12.7
3	13	7.5
4	16	9.2
5	9	5.2
6	12	6.9
7	2	1.2
8	2	1.2
9	1	0.6
10	1	0.6
More Than 10	6	3.5
Total	173	100.0

Table 13

Frequency and Percentage of Respondents Who have Delivered/ Take Out Pizza From Pizza Restaurants

Have Delivered Or Take Out Pizza From Pizza Restaurants	Frequency	Percent
0	34	19.7
1	33	19.1
2	27	15.6
3	24	13.9
4	16	9.2
5	8	4.6
6	8	4.6
7	3	1.7
8	6	3.5
9	1	0.6
10	5	2.9
More Than 10	8	4.6
Total	173	100.0

Table 14

Frequency and Percentage of Respondents Who Used Pizza Coupons

Used Pizza Coupon	Frequency	Percent
Yes	113	65.3
No	60	34.7
Total	173	100.0

Table 15 presents responses regarding the frequency of pizza coupons used when respondents ate at pizza restaurants during the last two months. Over 72 percent of the respondents did not use pizza coupons; 9.8 percent used pizza coupons once; 8.1 percent used pizza coupons twice.

More than 38 percent of the respondents did not use pizza coupons when they had pizza delivered to their home or picked up pizza to eat at home (Table 16). However, more than 14 percent of the respondents used pizza coupons three times when ordering pizza. Four percent of the respondents used pizza coupons more than 10 times when they had pizza delivered, whereas only one of the respondents used pizza coupons more than 10 times when they ate at a pizza restaurant.

Table 17 shows the top seven pizza restaurants that respondents chose to visit during the last two months. The table also presents the number of times that respondents used coupons and the percentage of the people who used coupons at each restaurant. According to Table 17, Pizza Hut is the number one restaurant that the respondents visited, followed by Backstreets, and The Cellar. Also, 50 percent of the respondents who visited Pizza Hut used coupons whereas 35.29 percent of the respondents who visited Backstreets used coupons. The respondents reported that they never used pizza coupons with some restaurants such as Mike's Grill and Champs.

Table 15

Frequency and Percentage of Respondents Who Used Coupons at Pizza Restaurants

Used at Pizza Restaurants	Frequency	Percent
0	126	72.8
1	17	9.8
2	14	8.1
3	7	4.0
4	4	2.3
5	2	1.2
6	2	1.2
7	0	0.0
8	0	0.0
9	0	0.0
10	0	0.0
More Than 10	1	0.6
Total	173	100.0

Table 16

Frequency and Percentage of Respondents Who Used Coupons in Conjunction with Delivered or Take Out Pizza

Used Coupon For Delivered Or Take Out Pizza	Frequency	Percent
0	67	38.7
1	22	12.7
2	22	12.7
3	25	14.5
4	9	5.2
5	5	2.9
6	5	2.9
7	2	1.2
8	5	2.9
9	2	1.2
10	2	1.2
More Than 10	7	4.0
Total	173	100.0

Table 17

Top Seven Restaurants that Respondents Visited (Number of people who chose the restaurant)

Name of Restaurant	Number of People who chose the Restaurant	Number of People Who Used Coupons at the Restaurant	Percentage of People Who Used Coupons
Pizza Hut	50	25	50.00%
Backstreets	34	12	35.29%
Cellar	11	4	36.36%
Mike's Grill	8	0	0.00%
Champs	5	0	0.00%
Chicago's	4	1	25.00%
Pizza Inn	4	2	50.00%

Table 18 presents the number of times that respondents visited the top seven restaurants as well as the number of times that coupons were used. The ranking used for Table 18 was the same ranking as Table 17 which came from the number of people who chose the restaurant. The respondents reported that out of 117 times that they visited Pizza Hut, they used coupons 46 times. Thus, the respondents used coupons 39.32 percent of the times they visited Pizza Hut, whereas the respondents used coupons 26.67 percent of the times they visited Backstreets.

Table 19 presents the top seven restaurants from which people chose to have pizza delivered to their homes or picked up pizza to eat at home. Again, Pizza Hut was the number one restaurant for respondents who had their pizza delivered, which accounted for 54 percent. Gumby's restaurant was ranked number two for delivery. However, when it comes to the number of people who used pizza coupons when they had their pizza delivered, 100 percent of the respondents who chose Gumby's restaurant used coupons compared to only 54 percent for Pizza Hut. Backstreets restaurant was ranked third and those who had pizza delivered or picked up pizza to eat at home used coupons 96 percent of the time. Domino's ranked fourth and 83 percent of the respondents who ordered from Domino's used coupons.

The ranking of Table 20 was the same ranking as Table 19. According to Table 20, the respondents reported that they used pizza coupons more than 85 percent of the time when they ordered from Dino's (93.75 percent), Backstreets (90.5 percent), Gumby's (90.29 percent), and Papa John's (87.69 percent). On the other hand, the respondents only used coupons 48 percent of the time when they ordered out from Pizza Hut, and 64.91 percent when from Domino's.

Table 18

Top Seven Restaurants that Respondents Visited (Presenting Number of Times)

Name of Restaurant	Number of Times That People Visited The Restaurant	Number of Times That People Used Coupons	Percentage of Times That people Used Coupons
Pizza Hut*	117	46	39.32%
Backstreets	60	16	26.67%
Cellar	16	5	31.25%
Mike's Grill	12	0	0.00%
Champs	13	0	0.00%
Chicago's	18	1	5.56%
Pizza Inn	4	2	50.00%

* Out of 50 people who chose Pizza Hut (Table 17), they visited Pizza Hut 117 times.

Table 19

Top Seven Ranking Restaurants According to the Number of People who Chose the restaurant to Have their Pizza Delivered to Their Home

Name of Restaurant	Number of People Who Chose this Restaurant to Have Delivered Pizza	Number of People Who Used Coupons	Percentage of People Who Used Coupons
Pizza Hut	50	27	54.00%
Gumby's	30	30	100.00%
Backstreets	25	24	96.00%
Domino's	24	20	83.33%
Papa John's	23	20	86.96%
Four Star	14	12	85.71%
Dino's	13	12	92.31%

Table 20

Top Seven Ranking Restaurants According to the Number of Times the Name of the Restaurant Was Chosen for Having Their Pizza Delivered to Their Home

(Number of Times)

Name of Restaurant	Number of Times That Pizza Was Delivered	Number of Times Coupons Were Used	Percentage of Times That Coupons Were Used
Pizza Hut*	117	57	48.72%
Gumby's	103	93	90.29%
Backstreets	53	48	90.57%
Domino's	57	37	64.91%
Papa John's	65	57	87.69%
Four Star	37	29	78.38%
Dino's	32	30	93.75%

* Out of 50 respondents who chose to have their pizza delivered from Pizza Hut, they had pizza delivered 117 times.

Question 10 aimed at finding out the source of coupons that respondents received and the frequency at which they received the coupons. Table 21.1 shows that 46.8 percent of the respondents received coupons through the newspaper. Table 21.2 shows at which the highest frequency that respondents received the coupons through the newspaper was eight times during the past two months (14.5 percent), followed by four times during the past two months (9.8 percent).

According to Table 21.3, 78.6 percent of the respondents received coupons through direct mail. The number one frequency of receiving coupons from direct mail was twice during the past two month (37.6 percent), followed by once every two months (28.3 percent) (Table 21.4).

Table 21.5 shows 22 percent of the respondents having received their coupons through door-hanging. About 18 percent of the respondents reported that they received the coupons two times during the last two months; 2.9 percent reported that they received the coupons once every two months (Table 21.6). About 16 percent of the respondents reported that they received their coupons through other means such as in the store (Table 21.7).

Table 21.1

Frequency and Percentage of Respondents Who Received Coupons Through Newspaper

Newspaper	Frequency	Percent
Yes	81	46.8
No	92	53.2
Total	173	100.0

Table 21.2

Number of Times Coupons were Received from Newspaper (During the Last Two Months)

Number of Times Coupons were Received from Newspaper	Frequency	Percent
0	92	53.2
1	9	5.2
2	13	7.5
3	8	4.6
4	17	9.8
5	2	1.2
6	1	0.6
7	1	0.6
8	25	14.5
More Than 8	5	2.9
Total	173	100.0

Table 21.3

Frequency and Percentage of Respondents Who Received Coupons Through Direct Mail

Direct Mail	Frequency	Percent
Yes	136	78.6
No	37	21.4
Total	173	100.0

Table 21.4

Number of Times Coupons were Received From Direct Mail (During the Last Two Months)

Number of Times Coupons were Received from Direct Mail	Frequency	Percent
0	37	21.4
1	49	28.3
2	65	37.6
3	5	2.9
4	13	7.5
5	1	0.6
6	0	0.0
7	0	0.0
8	3	1.7
More Than 8	0	0.0
Total	173	100.0

Table 21.5

Frequency and Percentage of Respondents Who Received Coupons Through Door Hangings

Door Hanging	Frequency	Percent
Yes	38	22.0
No	135	78.0
Total	173	100.0

Table 21.6

Number of Times Coupons were Received from Door Hangings (During the Last Two Months)

Number of Times Coupons were Received from Door Hanging	Frequency	Percent
0	135	78.0
1	5	2.9
2	32	18.5
3	0	0.0
4	0	0.0
5	0	0.0
6	0	0.0
7	0	0.0
8	1	0.6
More Than 8	0	0.0
Total	173	100.0

Table 21.7

Frequency and Percentage of Respondents Who Received Coupons Through Other Sources (e.g. Coupons Received in the Store)

Other	Frequency	Percent
Yes	29	16.8
No	144	83.2
Total	173	100.0

According to table 21.8, most of them received coupons from other means two times during the past two months (5.2 percent). Section II asked the respondents whether they agreed or disagreed with the statements concerning coupons and psychographic variables. Their choice of answers was presented on a Likert scale with '1' indicating "strongly disagree," and '5' signifying "strongly agree." According to question 1 of section II, about 48 percent of the respondents agree or strongly agree with the statement that coupons increase the frequency of their pizza purchases, whereas 35 percent disagree or strongly disagree with the statement (Table 22).

More than 70 percent of the respondents disagree or strongly disagree with the statement that they would not go to a pizza restaurant or order out if they did not have pizza coupons (Table 23). However, 48.9 percent of the respondents agree or strongly agree that pizza coupons entice them to try new pizza restaurants versus 36.6 percent who disagree or strongly disagree (Table 24). Also, 42.4 percent of the respondents agree or strongly agree that they normally use coupons at the pizza restaurant that they regularly visit versus 34.9 percent of respondents who disagree or strongly disagree (Table 25).

Table 21.8

Number of Times Coupons were Received From Other Sources (During the Last Two Months)

Number of Times Coupons were Received from Other Sources	Frequency	Percent
0	143	82.7
1	2	1.2
2	9	5.2
3	6	3.5
4	2	1.2
5	2	1.2
6	3	1.7
7	1	0.6
8	3	1.7
More Than 8	2	1.2
Total	173	100.0

Table 22

Coupons Increased the Frequency of My Pizza Purchases

Answers:	Frequency	Percent
Strongly Disagree	33	19.2
Disagree	28	16.3
Neither Agree Nor Disagree	28	16.3
Agree	51	29.7
Strongly Agree	32	18.6
Total	172	100.0

Missing Cases 1

Table 23

Did Not Go to Pizza Restaurants If Did Not Have Coupons

Answers:	Frequency	Percent
Strongly Disagree	60	34.9
Disagree	63	36.6
Neither Agree Nor Disagree	29	16.9
Agree	13	7.6
Strongly Agree	7	4.1
Total	172	100.1*

Missing Cases 1

* The percentage does not equal to 100 percent due to rounding.

Table 24

Coupons Enticed Respondents to Try New Restaurants

Answers:	Frequency	Percent
Strongly Disagree	28	16.3
Disagree	35	20.3
Neither Agree Nor Disagree	25	14.5
Agree	66	38.4
Strong Agree	18	10.5
Total	172	100.0

Missing Cases 1

Table 25

Used Coupons With Regularly Visited Restaurants

Answers:	Frequency	Percent
Strongly Disagree	28	16.3
Disagree	32	18.6
Neither Agree Nor Disagree	39	22.7
Agree	42	24.4
Strongly Agree	31	18.0
Total	172	100.0

Missing Cases 1

Descriptive Statistics of Psychographic Variables

Table 26 to Table 34 represents the results of psychographic variables which were aimed at finding out the price sensitivity of the respondents. More than 55 percent of the respondents compared prices before buying items compared to only 25 percent who disagree or strongly disagree that they carefully compare prices before buying items (Table 26).

Table 27 shows that 54 percent of the respondents shopped a lot for specials. However, the percentage of those who agree and disagree with the statement that they usually watch advertisements for announcements of sales were about equal: 40 percent for those who agree or strongly agree and 37 percent for those who disagree or strongly disagree (Table 28). The percentage of those who agree/strongly agree and disagree/strongly disagree with the statement "When I shop, I usually go to several different stores to get the best prices" were exactly equal at 40.7 percent (Table 29).

However, the percentage for those who agree/strongly agree (61 percent) with the statement "I find myself checking the prices in the grocery store even for small items" were much higher than those who disagree/strongly disagree (27.9 percent) (Table 30). On the other hand, more respondents disagree (51.8 percent) with the statement "I have favorite brands, but most of the time I buy the brand I have a coupon for" (Table 31).

Table 26

Compared Prices Before Buying

Answers:	Frequency	Percent
Strongly Disagree	15	8.7
Disagree	28	16.3
Neither Agree Nor Disagree	34	19.8
Agree	54	31.4
Strongly Agree	41	23.8
Total	172	100.0

Missing Cases 1

Table 27

Shopped a Lot for Specials

Answers:	Frequency	Percent
Strongly Disagree	16	9.3
Disagree	34	19.8
Neither Agree Nor Disagree	29	16.9
Agree	56	32.6
Strongly Agree	37	21.5
Total	172	100.1*

Missing Cases 1

* The percentage does not equal to 100 percent due to rounding.

Table 28

Watched Advertisements for Specials

Answers:	Frequency	Percent
Strongly Disagree	21	12.2
Disagree	42	24.4
Neither Agree Nor Disagree	40	23.3
Agree	49	28.5
Strongly Agree	20	11.6
Total	172	100.0

Missing Cases 1

Table 29

Go to Different Stores to Get the Best Prices

Answers:	Frequency	Percent
Strongly Disagree	26	15.1
Disagree	44	25.6
Neither Agree Nor Disagree	32	18.6
Agree	54	31.4
Strongly Agree	16	9.3
Total	172	100.0

Missing Cases 1

Table 30

Checked The Prices In The Store

Answers:	Frequency	Percent
Strongly Disagree	21	12.2
Disagree	27	15.7
Neither Agree Nor Disagree	19	11.0
Agree	70	40.7
Strongly Agree	35	20.3
Total	172	99.9

Missing Cases 1

* The percentage does not equal to 100 percent due to rounding.

Table 31

Buy The Brand for which I Have A Coupon For

Answers:	Frequency	Percent
Strongly Disagree	28	16.3
Disagree	61	35.5
Neither Agree Nor Disagree	41	23.8
Agree	35	20.3
Strongly Agree	7	4.1
Total	172	100.0

Missing Cases 1

More than 47 percent of the respondents agree versus only 18.6 percent who disagree with the statement that "redeeming coupons for any product makes me feel good" (Table 32). On the contrary, more than 43.6 percent of the respondents disagree versus 20.4 percent who agree with the statement that "redeeming coupons gives me a sense of joy" (Table 33). Interestingly, about 70 percent of the respondents agree versus only 10.5 percent who disagree with the statement that "a person can save a lot of money using coupons" (Table 34).

Table 32

Redeeming coupons makes me feel good

Answers:	Frequency	Percent
Strongly Disagree	13	7.6
Disagree	19	11.0
Neither Agree Nor Disagree	59	34.3
Agree	53	30.8
Strongly Agree	28	16.3
Total	172	100.0

Missing Cases 1

Table 33

Coupons Gives a Sense of Joy

Answers:	Frequency	Percent
Strongly Disagree	30	17.4
Disagree	45	26.2
Neither Agree Nor Disagree	62	36.0
Agree	28	16.3
Strongly Agree	7	4.1
Total	172	100.0

Missing Cases 1

Table 34

Saved Money Using Coupons

Answers:	Frequency	Percent
Strongly Disagree	8	4.7
Disagree	10	5.8
Neither Agree Nor Disagree	34	19.8
Agree	86	50.0
Strongly Agree	34	19.8
Total	172	100.1*

Missing Cases 1

* The percentage does not equal to 100 percent due to rounding.

Hypotheses and Data Analysis

An hypothesis is a proposition that is empirically testable. Hypothetical statements assert probable answers to research questions. An alternative hypothesis is a statement indicating the opposite of the null hypothesis. A null hypothesis is a statement about a status quo. It is a conservative statement which communicates the notion that any change from what has been thought to be true or observed in the past will be due entirely to random error.

Hypothesis 1

HA: There is a relationship between pizza coupon usage and frequency of purchases.

Questions used to test this hypothesis:

Section I.

Question 4: Have you ever used coupons when purchasing pizza during the last two months?
Question 2: How often have you eaten pizza and other products at a pizza restaurant?
Question 3: How often did you have pizza delivered to your home or picked up pizza to eat at home from a restaurant?
Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants during the last two months?
Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home?

Section II.

Question 1: Coupons increase the frequency of my pizza purchases.
Question 4: I normally use coupons at the pizza restaurant I regularly visit.

A two mean t-test was run on question 4 (section I) with question 2 (section I), question 3 (section I), question 1 (section II), and question 4 (section II). According to the results from Table 35 (t-test between question 4 and question 2), the 2-tail probability is equal to 0.02 which means that we accept the alternative hypothesis because the 2-tail probability is less than an alpha level of .05. The t-test results for question 4 (section I) and question 3 (section I) as well as for question 4 (section I) and question 1 (section II), and question 4 (section I) and question 4 (section II), were significant. The 2-tail probabilities for these questions were all equal to 0.00 which all are less than an alpha level of 0.05. Therefore, the relationship between pizza coupon usage and frequency of repeat purchases is significant.

The correlation coefficient was run between question 2 and question 5 to find out the relationship between the frequency of going to pizza restaurants and the frequency of pizza coupon usage (Table 36). A total of 113 of respondents used coupons and 60 respondents did not use coupons. Only responses from those who used coupons (chose 'yes' for question 4), were used in the correlation. The correlation coefficient is .4537 which could be considered as a moderately positive correlation.

Table 35

Hypothesis 1. (two mean t-test)

Question 4 (section I) and question 2 (section I)
Question 4: Answer 'Yes' 113 'No' 60
Question 4: Coupons were used when purchasing pizza
Question 2: Frequency of pizza eaten at the restaurant

		Pooled variance estimate
F-value	**2-Tail Prob.**	**2-Tail Prob.**
1.39	.163	.020

Question 4 (section I) and question 3 (section I)
Question 4: Answer 'Yes' 113 'No' 60
Question 3: Frequency of pizza delivered/take out

		Separate variance estimate
F-value	**2-Tail Prob.**	**2-Tail Prob.**
2.87	.000	.000

Question 4 (section I) and question 1 (section II)
Question 4: Answer 'Yes' 113 'No' 59
Question 1: Coupons increase the frequency of pizza purchases.

		Pooled variance estimate
F-value	**2-Tail Prob.**	**2-Tail Prob.**
1.11	.675	.000

Question 4 (section I) and question 4 (section II)
Question 4: Answer 'Yes' 113 'No' 59
Question 4: Use coupons at the restaurant that I regularly visit

		Pooled variance estimate
F-value	**2-Tail Prob.**	**2-Tail Prob.**
1.29	.280	.000

Table 36

Hypothesis 1 (Correlation)

Question 4 select "yes" to correlate with Question 2 and Question 5, Question 3 and Question 6

N = 113 (those who said they used coupons in the last two months)

Question 2: Frequency of eating in a pizza restaurant
Question 5: Frequency of coupon use in a pizza restaurant

Question 3: Frequency of pizza delivery from a pizza restaurant
Question 6: Frequency of coupon use in delivery/take out

Question	Q. 2	Q. 3
Q. 5	0.4537*	
Q. 6		0.9141*

* The correlations were significant at the .01 level

In addition, correlation analysis was run between question 3 and question 6 to find out the relationship between having pizza delivered and the frequency of pizza coupon usage. The correlation coefficient is .9141 which is almost a perfect positive correlation.

Both of the correlations were significant at the 0.01 level. Thus, both of the correlations support hypothesis 1 since there is a positive relationship between pizza coupon usage and frequency of repeat purchases.

Hypothesis 2

HA: There is a relationship between pizza coupon usage and the willingness to try a new pizza restaurant.

Questions used to test this hypothesis:
Section I.

Question 4: Have you ever used coupons when purchasing pizza during the last two months?

Section II.

Question 3: Pizza coupons entice me to try new pizza restaurants.

Both a two mean t-test and correlations were used for the analysis of this hypothesis. The questions that used a two mean t-test were question 4 and question 3. Table 37 shows that the results were significant because the 2-tail probability is equal to 0.00 which is less than an alpha level of 0.05. Therefore, the relationship between pizza coupon usage and the willingness to try a new pizza restaurant is significant.

Table 37

Hypothesis 2 (two mean t-test)
(N = 172)

Question 4 (section I) with question 3 (section II)

Question 4: Coupon usage
Question 3: Pizza coupons entice the respondent to try new pizza restaurants

		Pooled variance estimate
F-value	2-Tail Prob.	2-Tail Prob.
1.03	.910	.000

Hypothesis 3

HA: There is a relationship between pizza coupon usage and age.

Questions used to test this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?

Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant?

Section III.

Question 4: What is your age?

Analysis of the variance (ANOVA) was used to test this hypothesis. Question 5 and age as well as question 6 and age were used to test this hypothesis.

Table 38 presents the results for pizza coupon usage and age when pizza coupons were used when respondents ate at a pizza restaurants. Table 38 shows that the F-probability is equal to 0.0332 which is significant because it is less than an alpha level of 0.05. This means that the relationship between pizza coupon usage (when eating in) and age is significant. Even though the analysis does not indicate which age groups are significantly different, the mean (1.36) indicates that the age group between 26-35 were those who used pizza coupons more frequently than any other age group, followed by those who were in the 36-45 age group (mean is .86), and those who were 18-25 (mean is .48). On the other hand, people who were in the age over 55 group used coupons

Table 38

Hypothesis 3 (Analysis of Variance)

Question 5 (section I) with Question 4 (section III)

Question 5: Frequency of pizza coupons use when eating at a pizza restaurant

Question 4: Age

F-Ratio	F-Prob.
2.6852	0.0332*

Mean Of ANOVA

Age	Mean
18-25	0.4810
26-35	1.3600
36-45	0.8571
46-55	0.4706
Over 55	0.2273

* significant at .05 level

less frequently than any other age group.

ANOVA was run on question 6 and age (Table 39). The result is significant because the F-probability is equal to 0.00 (Table 39). This result also supports the hypothesis that the relationship between pizza coupon usage (when having pizza delivered) and age is significant. The means of the results suggest that the age group between 18-25 were those who used coupons the most when they had pizza delivered or picked up pizza to eat at home (mean is 3.36). The people who were in the age over 55 group used coupons less frequently than any other age group. In addition, the age group between 18-25 is significantly different (at the 0.05 level) than the age over 55 and 46 to 55 age group.

Both of the results support the hypothesis that the relationship between pizza coupon usage and age is significant.

Table 39

Hypothesis 3 (Analysis of Variance)

Question 6 (section I) with Question 4 (section III)

Question 6: Delivery or take out using coupons

Question 4: Age

F-Ratio	F-Prob.
7.3766	0.0000

Mean Of ANOVA

Age	Mean
18-25*	3.3671
26-35	2.3600
36-45	1.6429
46-55	1.0000
Over 55	0.2727

* Age group 18-25 is significantly different from the age over 55 and 46-55.

Hypothesis 4

HA: There is a relationship between occupation and frequency of pizza coupon usage.

HA (1): There is a relationship between occupation and frequency of pizza coupon usage when dining in.
HA (2): There is a relationship between occupation and frequency of pizza coupon usage when pizza was delivered or pizza was picked up to eat at home.

Questions used to test this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?
Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant?

Section III.

Question 6: What is your occupation?

First, ANOVA was run between question 5 and occupation. The results show that the F-probability is equal to .2497 which is greater than the alpha level of 0.05 (Table 40). This means that we fail to accept the alternative hypothesis. Thus, the relationship between occupation and frequency of pizza coupon usage when used dining in is not significant.

On the other hand, the result of ANOVA between question 6 and occupation is statistically significant. The F-probability is equal to .0357 which is less than the alpha level of 0.05 (Table 41). This means that we accept the alternative hypothesis which indicates that the relationship between occupation and frequency of pizza coupon usage, when

Table 40

Hypothesis 4 (Analysis of Variance)

Question 5 (section I) with Question 6 (section III)

Question 5 (section I): Frequency of coupons used when dining in
Question 6 (section III): Occupation

F-Ratio	F-Prob.
1.3234	0.2497

Table 41

Hypothesis 4 (Analysis of Variance)

Question 6 (section I) with Question 6 (section III)

Question 6 (section I): Frequency of coupons usage with delivery

Question 6 (section III): Occupation

F-Ratio	F-Prob.
2.3199	0.0357

Mean Of ANOVA

Occupation	Mean
Professor	1.7442
Student	3.0732
Retired	0.2857
Housewife	2.0000
Bluecollar	1.0000
Artist	1.2000
Other	1.3889

pizza was delivered to the house or pizza was picked up to eat at home, is statistically significant. Although the results of the ANOVA did not identify differences between any two groups, the means reveal that students are the most frequent users of coupons (the mean is 3.07) when they had pizza delivered to their home, whereas retired people use coupons less than any other occupation (the mean is .29).

Hypothesis 5

HA: There is a relationship between income and frequency of pizza coupon usage.

Questions used to test this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?
Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant?

Section III.

Question 7: What is your annual household income?

ANOVA was run between question 5 and income and between question 6 and income. The results for question 5 and income, and question 6 and income, indicate that the F-probability is .29, and .70 respectively (Table 42 and Table 43). This means that we reject the alternative hypothesis because both of the F-probabilities are greater than the alpha level of 0.05. Thus, the relationship between income and frequency of pizza coupon usage is not statistically significant.

Table 42

Hypothesis 5 (Analysis of Variance)

Question 5 (section I) with Question 7 (section III)

Question 5: Frequency of coupon usage when dining in

Question 7: Income

F-Ratio	F-Prob.
1.2292	0.2902

Table 43

Hypothesis 5 (Analysis of Variance)

Question 6 (section I) with Question 7 (section III)

Question 6: Frequency of coupon usage with take out/delivery

Question 7: Income

F-Ratio	F-Prob.
0.6718	0.6957

Hypothesis 6

HA: There is a relationship between family size and frequency of pizza coupon usage.

HA (1): There is a relationship between family size and frequency of pizza coupon usage when dining in.
HA (2): There is a relationship between family size and frequency of pizza coupon usage when pizza was delivered or pizza was picked up to eat at home.

Questions used to test this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?
Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant?

Section III.

Question 3: How many children 18 and under live in your home?

ANOVA was used for question 5 and family size. Table 44 shows that the result for question 5 and family size is statistically significant because the F-probability is equal to .0052 which is less than the alpha level of 0.05. Thus, the relationship between family size and frequency of pizza coupon usage when dining in is significant.

However, the result of ANOVA for question 6 and family size is not statistically significant (Table 45). The F-probability is equal to 0.0809 which is higher than the alpha level of 0.05. The relationship between family size and frequency of pizza coupon usage, when pizza was delivered or picked up to eat at home, is not statistically significant.

Table 44

Hypothesis 6 (Analysis of Variance)

Question 5 (section I) with Question 3 (section III)

Question 5: Frequency of coupon usage when dining in

Question 3: Number of children (age 18 and under) at home

F-Ratio	F-Prob.
3.4703	0.0052

Mean Of ANOVA

Number of Children In Home	Mean
0	0.3661
1	1.3636
2	1.3636
3	0.5385
4	0.0000
5	0.0000
6	1.0000

Table 45

Hypothesis 6 (Analysis of Variance)

Question 6 (section I) with Question 3 (section III)

Question 6: Frequency of coupon usage with take out/delivery

Question 3: Number of children (age 18 and under) at home

F-Ratio	F-Prob.
2.0021	0.0809

Hypothesis 7

HA: There is a relationship between education level and frequency of pizza coupon usage.

HA (1): There is a relationship between education and frequency of pizza coupon usage when dining in.

HA (2): There is a relationship between education and frequency of pizza coupon usage when pizza was delivered or pizza was picked up to eat at home.

Questions used to test this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?
Question 6: How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant?

Section III.

Question 5: Education

ANOVA was run on question 5 and education. The F-probability is equal to .5987 which is greater than the alpha level of 0.05 (Table 46). Thus, we reject the alternative hypothesis because the result is not statistically significant. This also means that the relationship between education and frequency of pizza coupon usage, when used when dining in, is not significant.

On the other hand, the result of ANOVA for question 6 and education is statistically significant because the F-probability is equal to 0.0149 (Table 47). This means that the relationship between education and frequency of pizza

Table 46

Hypothesis 7 (Analysis of Variance)

Question 5 (section I) with Question 5 (section III)

Question 5 (section I): Frequency of coupon usage when dining in

Question 5 (section III): Education

F-Ratio	F-Prob.
0.6267	0.5987

Table 47

Hypothesis 7 (Analysis of Variance)

Question 6 (section I) with Question 5 (section III)

Question 6: Number of times pizza coupons were used when pizza were delivered

Question 5: Education

F-Ratio	F-Prob.
3.5946	0.0149

Mean of ANOVA

Level of Education	Mean
Did Not Finish High School	0.5000
High School*	3.3208
College Degree	2.0769
Graduate College Degree	1.6000

* Significantly different from those with a graduate college degree.

coupon usage, when pizza was delivered or picked up to eat at home, is statistically significant. A high school diploma category has the highest mean (3.32), followed by the college degree category (mean is 2.07), graduate college degree (1.60), and did not finish high school (.5). Those with a high school diploma were significantly different from those with a graduate college degree at the 0.05 level. Other categories were not significantly different from each other.

Hypothesis 8

HA: There is a relationship between psychographic behavior and coupon usage.

Questions used for this hypothesis:

Section I.

Question 5: How frequently have you used pizza coupons when you ate at pizza restaurants?
Question 6: How many times did you use pizza coupons when you had pizza delivered or picked up pizza to eat at home?

Section II.

Question 5: I carefully compare prices before buying items.
Question 6: I shop a lot for specials.
Question 7: I usually watch advertisements for announcements of sales.
Question 8: When I shop, I usually go to several different stores to get the best prices.
Question 9: I find myself checking the prices in the grocery store even for small items.
Question 10: I have favorite brands, but most of the time I buy the brand I have a coupon for.
Question 11: Redeeming coupons for any product makes me feel good.
Question 12: Beyond the money I save, redeeming coupons gives a sense of joy.
Question 13: A person can save a lot of money using coupons.

Correlations were run on question 5 (section I) and psychographic variables (section II) as well as question 6 (section I) and psychographic variables (section II). According to Table 48, the results of the correlations between question 5 and the psychographic variables indicate that the relationship is positive for all of the variables except for question 10, which turns out to be negative.

The correlations between question 5 (section I) and some of the psychographic variables were significant. Those questions that were significantly correlated with question 5 (section I) are question 7 (significant at 0.05 level), question 8 (significant at 0.01 level), question 11 (significant at 0.05 level). The correlation coefficient between question 5 and question 10 is negative which means that their values have a tendency to deviate in the opposite directions. However, the correlation coefficient for question 5 and question 10 could be categorized as having a low negative correlation and it is not significant at 0.05 level.

The correlation coefficients are quite low for all of the psychographic variables with question 5 and question 6. The results for question 6 and the psychographic variables are very similar to the prior correlations (Table 48). None of the correlation coefficients is above .3; this means that the association between question 5, question 6, and psychographic variables are low but positive.

Table 48
Hypothesis 8 (Correlation Coefficients)

Questions 5 and 6 (section I) with Questions 5 to 13 (section II)

Question Section II	Section I Q.5	Section I Q.6
Q.5	0.1330	0.1774*
Q.6	0.1417	0.2540**
Q.7	0.1789*	0.1065
Q.8	0.2011**	0.1890*
Q.9	0.0904	0.1684*
Q.10	-0.0055	0.1216
Q.11	0.1622*	0.1551*
Q.12	0.1193	0.0497
Q.13	0.1264	0.2136**

* significant at 0.05 level
** significant at .01 level

Some of the correlations between question 6 and the psychographic variables, were significant at the 0.5 and 0.01 levels. Those that were significant at 0.05 level were between question 6 (section I) and question 5, question 8, question 9, and question 11. Those that were significant at .01 level were question 6 (section I) with question 6, and question 6 (section I) with question 13.

Thus, the results somewhat support the hypothesis that there is a relationship between psychographic behavior and coupon usage. Most of their associations are low but positive.

Hypothesis 9

HA: Customers prefer to redeem coupons when coupons were for purchasing combination meals, not given in the form of dollars off the product or a percentage off the whole meal.

Questions used for this hypothesis:

Section I.

Question 9: Which type of coupon do you redeem most often?
Please rank in order (1,2,3)
____ combination meals ___ percentage discount
____ dollar off

Frequency was run on question 9 to find out the number one type of coupon that respondents redeemed most often. According to Table 49.1 to Table 49.3, dollars off was ranked as the number one type of coupon (44.2 percent) that respondents redeemed most often, whereas the category called

Table 49.1

Frequency and Percentage of "Combination Deals"

Combination Deals Rank as number	Frequency	Percent
0*	28	16.2
1	54	31.2
2	51	29.5
3	40	23.1
Total	173	100.0

*** 0 Means that this answer is not applicable to the respondents.**

Table 49.2

Frequency and Percentage of "Percentage Discount"

Percentage Discount Rank as number	Frequency	Percent
0*	26	15.1
1	18	10.5
2	44	25.6
3	84	48.8
Total	172	100.0

*** 0 Means that this answer is not applicable to the respondents.**

Table 49.3

Frequency and Percentage of "Dollars Off"

Dollars Off Rank as Number	Frequency	Percent
0*	24	14.0
1	76	44.2
2	51	29.7
3	21	12.2
Total	172	100.1**

*** 0 Means that this answer is not applicable to the respondents.**

**** The percentage does not equal to 100 percent due to rounding**

combination deals was ranked number one 31.2 percent of the time and percentage discount was ranked number one only 10.5 percent of the time. Percentage discount was ranked number three 48.8 percent versus 23.1 percent for combination meals and 12.2 percent for dollars off.

Thus, the results did not support the hypothesis that customers preferred to redeem coupons when coupons were for purchasing combination meals not given in the form of dollars off the product or a percentage off the whole meal. The results clearly indicate that a dollar off is the number one type of coupon redeemed most often by respondents (43.9 percent), followed by combination meals (31.2 percent), and percentage discount (10.5 percent) respectively. Caution should be used in interpreting these results. The use of the term "dollar off" may get different responses than, say, the use of the term "an absolute amount off." In other words, the magnitude of the amount off could cause responses to vary. Future research might incorporate categories of amounts off.

Hypothesis 10

HA: Pizza coupons were most often redeemed when they were distributed through direct mail.

Questions used for this hypothesis:

Section I.

Question 11: Please choose only one of the coupons that you redeem most often:

___ Newspaper	____ Direct mail
___ Door-hanging	____ All other (coupons received in the store)

Frequencies were run on question 11 to find out the source of coupons that respondents redeemed most often (Table 50). Direct mail received the highest percentage (52 percent), followed by newspaper, in the store, and door hanging which accounted for 23.7 percent, 9.8 percent, and 2.3 percent respectively. Thus, the result supports the hypothesis that pizza coupons were most often redeemed when they were distributed through direct mail.

Table 50

Frequency and Percentage of the Source of Coupons that Respondents Redeemed Most Often

Source of coupons redeemed:	Frequency	Percent
Never used coupon	21	12.1
Newspaper	41	23.7
Direct Mail	90	52.0
Door-Hanging coupons	4	2.3
All other (coupons received in the store)	17	9.8
Total	173	99.9*

* The percentage does not equal to 100 percent due to rounding.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

This chapter discusses the interpretation of the results. A brief note on the limitation of the study in terms of its methodology will be included. Appropriate conclusions will be drawn from the findings. Marketing strategies concerning coupon promotion, and some future research topics are discussed.

SUMMARY OF THE STUDY

The purpose of this study was to examine the relationship between discount coupons and repeat purchase behavior for customers of pizza restaurants. The study also examined demographic and psychographic variables, the type of coupon redeemed most often, and the means of distribution for the most frequently redeemed coupons.

A mail survey was conducted in Blacksburg, Virginia. Out of 500 questionnaires, 174 questionnaires were returned, which accounted for 40.56 percent of the sample. There were 173 usable questionnaires. Fifty nine percent of the respondents were females. Fifty four percent of the

respondents were single. The majority of the respondents were students (50 percent). The age group between 18-25 years accounted for 46 percent of the respondents. Only 1.2 percent of the respondents did not finish high school; more than 69 percent had at least a high school diploma. About 85 percent of the respondents were white, 7.1 percent were Asian, 5.2 were Black, and 1.2 percent were Hispanic.

Hypotheses Analysis and Marketing Implications

Hypothesis 1

HA: There is a relationship between pizza coupon usage and frequency of purchases.

Hypothesis 1 was accepted which means that the relationship between pizza coupon usage and frequency of repeat purchases is significant. A correlation was run to find out the relationship between pizza delivery and the frequency of pizza coupon usage. The correlation coefficient result was .9141 which is an almost perfect positive correlation. Another correlation was run to find out the correlation between the frequency of going to pizza restaurants and the frequency of pizza coupon usage. The correlation coefficient result was .4537 which signifies a moderately positive correlation.

The results are useful for marketers in many perspectives. First, the results indicated that the pizza coupon was one of the means which increases the frequency of purchase. Second, since there is an almost perfect positive correlation between pizza delivery and coupon usage, marketers might want to take advantage of this strong positive relationship by increasing the distribution of coupons for pizza delivery. Third, the result showed a moderately positive correlation between using pizza coupons when eating at the restaurant and the frequency of pizza purchase. The marketers might want to increase frequency of pizza purchases by stimulating the use of pizza coupons.

Hypothesis 2

HA: There is a relationship between pizza coupon usage and the willingness to try a new pizza restaurant.

Since the 2-tail probability is equal to 0.00, this hypothesis was accepted. This means that a relationship between pizza coupon usage and the willingness to try a new pizza restaurant existed. Thus, marketers could attempt to attract new triers through the use of coupons. Once the coupon has attracted people, marketers should make sure that their product, price, quality of service match customers' perceptions of value in order to change the status of customers from 'triers' to 'regulars.'

Hypothesis 3

HA: There is a relationship between pizza coupon usage and age.

Hypothesis 3 was accepted because the F-probability is statistically significant at the alpha level of 0.05. This means that the relationship between pizza coupon usage and age existed. Although, there was no statistically significant different between any two specific age groups for pizza coupon usage at a pizza restaurant, the means indicated that people who were at the ages of 26-35 were those who used pizza coupons more frequently than other age groups when they went to eat at the restaurants. Those who were in 36-45 age group had the second highest mean for coupons used when dining in. Those people who belonged to the age group over 55 were less likely to use coupons.

The results show that the relationship between pizza coupon usage (when having pizza delivered) and age is significant. The means of the results suggest that the age group between 18-25 were those who used coupons the most when they had pizza delivered or picked up pizza to eat at home (mean is 3.36). In addition, the age group between 18-25 is significantly different (at the 0.05 level) than the age over 55 and 46 to 55 age group.

Since the results of this study supports the hypothesis, marketers could use age to help define their target market. Many of the respondents who were over 55 responded that they were hardly ate pizza, thus, they did not use pizza coupons. The result of this study agree with Iwamuro (1993) that customers over 50 are least likely to order pizza. One of them never used pizza coupons because their senior citizen discount card permitted them to have a 20 percent discount off their meal at Pizza Hut.

If marketers want to increase their traffic of home-delivered sales, they should ensure that their coupons for delivery are being distributed to those who are in the age group of 18-25. This is the group that used coupons most often when they had their pizza delivered. According to the results, senior citizens would not be the best target market for pizza restaurants since they do not eat pizza often. However, marketers might consider adjusting their products to cater for senior citizen needs. Since one of the senior respondents preferred to use the discount card, marketers might want to offer the discount card for pizza to senior citizens.

Hypothesis 4

HA: There is a relationship between occupation and frequency of pizza coupon usage.

HA (1): There is a relationship between occupation and frequency of pizza coupon usage when dining in.
HA (2): There is a relationship between occupation and frequency of pizza coupon usage when pizza was delivered or picked up to eat at home.

The hypothesis HA (1) was rejected which means that the relationship between occupation and frequency of pizza coupon use when dining in is not statistically significant. Thus, using occupation as a basis for distributing coupons and increasing business is not likely to be very effective. On the other hand, the relationship between occupation and frequency of pizza coupon usage when pizza was delivered to the house or pizza was picked up to eat at home is statistically significant at the alpha level of 0.05. This means that the hypothesis HA (2) was accepted. Although students were the most frequent users of coupons (mean is 3.07), the ANOVA could not distinguish between any two groups on a statistical basis. While occupation could be one of the segmenting dimensions used by pizza restaurants, more analysis is necessary. It should be noted that in this sample, several occupation groups were not strongly represented.

Hypothesis 5

HA: There is a relationship between income and frequency of pizza coupon usage.

The results indicate that the relationship between income

and frequency of pizza coupon usage is not statistically significant. As a result, this hypothesis was rejected. Thus, implications of this analysis are that income itself is not a good segmentation dimension for pizza restaurants.

Hypothesis 6

HA: There is a relationship between family size and frequency of pizza coupon usage.

HA (1): There is a relationship between family size and frequency of pizza coupon usage when dining in.

HA (2): There is a relationship between family size and frequency of pizza coupon usage when pizza was delivered or pizza was picked up to eat at home.

The result of HA (1) shows that the F-probability is equal to 0.05 which means that the relationship between family size and frequency of pizza coupon usage at a restaurant is significant. Thus, the hypothesis HA (1) was accepted.

However, the result of ANOVA for HA (2) is not statistically significant, so hypothesis (2) was rejected. The relationship between family size and frequency of pizza coupon usage, when pizza was delivered or pizza was picked up to eat at home, is not statistically significant.

Although the ANOVA did not pinpoint any significant differences between groups based on number of children at home, the means show that those with one or two children ate at pizza restaurants more often than respondents in other categories.

Hypothesis 7

HA: There is a relationship between education level and frequency of pizza coupon usage.

HA (1): There is a relationship between education and frequency of pizza coupon usage when used dining in.

HA (2): There is a relationship between education and frequency of pizza coupon usage when pizza was delivered or pizza was picked up to eat at home.

The hypothesis (1) was rejected and hypothesis (2) was accepted. This implies the relationship between education and frequency of pizza coupon usage is statistically significant only when the coupons were used when pizza delivered not for dining in.

The best target for coupons would be those who have a high school diploma. This group was significantly different from those with a graduate degree.

Hypothesis 8

HA: There is a relationship between psychographic behavior and coupon usage.

The correlations between question 5 (section I) and some of the psychographic variables were significant. Those questions that were significantly correlated with question 5 (section I) are question 7 'I usually watch advertisements for announcements of sales' (significant at 0.05 level), question 8 'when I shop, I usually go to several different stores to get the best prices' (significant at 0.01 level), question 11

'redeeming coupons for any product makes me feel good' (significant at 0.05 level).

Some of the psychographic variables were also significantly correlated with question 6. Those that were significant at 0.05 level were between question 6 (section I) and question 5, question 8, question 9, and question 11. Those that were significant at .01 level were question 6 (section I) with question 6 'I shop a lot for specials', and question 6 (section I) with question 13 'A person can save a lot of money using coupons.'

The high number of significant correlations indicates that those who use coupons may fit a psychographic profile. Even though some of the correlation coefficients were statistically significant, none of the correlation coefficients is above 0.3.

Hypothesis 9

HA: Customers prefer to redeem coupons when coupons were for purchasing combination meals, not given in the form of dollars off the product or a percentage off the whole meal.

A 'Dollar off' was ranked as the number one type of coupon (44.2 percent) that respondents redeemed most often whereas combination deals were ranked number one 31.2 percent of the time and percentage discount was ranked number one only 10.5 percent of the time.

Thus, the results did not support the hypothesis that customers prefer to redeem coupons when coupons were for purchasing combination meals, not given in the form of dollars off the product or a percentage off the whole meal.

Hypothesis 10

HA: Pizza coupons were most often redeemed when they were distributed through direct mail.

The results support this hypothesis. Direct mail received the highest percentage (52 percent), followed by newspaper, in the store, and door hanging which accounted for 23.7 percent, 9.8 percent, and 2.3 percent respectively. This could be due to consumers getting coupons most often through direct mail. Marketers should distribute their coupons to customers through direct mail rather than other means.

RECOMMENDATIONS TO PIZZA RESTAURANTS' MANAGERS

Since one of the fastest growing vehicles of promotion is couponing, many criteria should be examined to reassure their effectiveness. The recommendations are as follows:

Marketers might want to examine their distribution system that is responsible for 'Door-Hanging' since 78 percent of the respondents never received their coupons through this means. They should make sure that the target markets do get the coupons regularly in order to increase the effectiveness of this means.

Marketers should use a 'Dollar Off' coupon type rather than other types since this type is more appealing to customers. However, more research should be done on the amount of the discount.

If marketers want to increase their pizza delivery sales, they might want to attract customers who are students (finished high school) and in the age group of 18-25. If they want to increase their sales of dining in, they want to issue coupons to attract those who are in the age group 26-45, or/and families with one or two children.

According to the results of this study, psychographic variables on price sensitivity of customers play a very small role in determining coupon usage since no strong correlations

existed between them. Also, income by itself is not a good segmenting dimension for pizza restaurant managers to use.

To ensure survival, maintain profitability, and stay competitive, managers should price their products to match customers' value and expectations. The results of this study support the importance of couponing the pizza restaurant industry.

Limitations

This study focused only on the Blacksburg, Virginia area. Therefore, the data and the results may not be representative of other areas because Blacksburg, Virginia is a university town. A high number of respondents were students. Thus, this might influence the results of this study. If the number of respondents in the occupatioal categories of the sample were more equal, the results might be different from this study. The sample for this study was from a telephone directory. Thus, one of the limitations of this study is that not all households' addresses in the area were listed in the telephone directory.

RECOMMENDATIONS FOR FUTURE RESEARCH

1. Expand the sample size and sample group. This study only focused on the population of Blacksburg, Virginia. Thus, the ability to generalize the results for other areas is limited. A larger sample size and sample group to cover other areas would increase the generalizability.
2. This study focused on those who used coupons and their frequency of purchase. Future research could be conducted focusing on : 1) reasons for not using coupons, 2) reasons for not purchasing pizza products, 3) the most appropriate face value of coupons for attracting customers while benefitting restaurants.
3. Since the U.S. population is aging, research could be done to find out how pizza restaurants could improve their products and coupon promotion in such a way that would attract the senior market.
4. Research could be done on the expense of coupon promotions by pizza restaurants and the amount of coupons redeemed by customers to find out the effectiveness of the promotion.

This study shows the importance of couponing in the pizza restaurant industry. More study needs to be done in this area to relating the psychographics to coupon use. This study shows that even though some psychographic variables that were selected for this study (based on price sensitivity), were statistically significant, the correlation between these variables and coupon usage were very low. In addition, the study shows that 'Dollar off' coupon type and the means of distribution through direct mail are preferred by customers over other methods.

References

Aaker, D.A., (1973), "Toward a Normative Model of Promotional Decision Making," Management Science, 19, (6), 435-450.

Andereck, K.O. (1988), "Let's Make a Deal," Restaurant Hospitality, 72, (4), 166-167.

Alva, M. (1987), "Price Wars Fast-Food Chains Battle for Market Shares," Nation's Restaurant News, 1-165.

Anonymous, (1983), "Couponing: Boosting Your Long-Term Business," Nation's Restaurant News, 11, 41.

Anonymous, (1985), "Coupon Promotions," Independent Restaurants, 2, 68-71.

Babbie, E. (1992), The Practice of Social Research, CA: Wadsworth Publishing Company.

Bauer, R.A. (1960), "Consumer Behavior as Risk Taking," Proceedings of the 43 National Conference of the American Marketing Association, Chicago: American Marketing Association.

Bawa, K., Shoemaker, R.W. (1987), "The Coupon-Prone Consumer:Some Findings Based on Purchase Behavior Across Product Classes," Journal of Marketing, 51, (10), 99-110.

-----, Shoemaker, R.W. (1987), "The Effects of a Direct Mail Coupon on Brand Choice Behavior," Journal of Marketing

Research, 24, (11), 370-376.

Bearden, W.O., Teel, J.E., and Williams, R.H. (1980), "Correlates of Consumer Susceptibility to Coupons in New Grocery Product Introductions," Journal of Advertising, 9, (3), 31-35.

Berry, L.L., Lefkowith, E.F., and Clark, T. (1988), "In Services, What's in a Name?" Harvard Business Review, 9, 28-30.

Blair, K.C. (1982), "Coupon Design, Delivery Vehicle, Target Market Affect Conversion Rate: Research," Marketing News, 15, 5, 1-2.

Blattberg, R.C., Buesing, T., and Sen, S.K. (1978), "Identifying the Deal Prone Segment," Journal of Marketing Research, 15, (7), 369-377.

-----, (1976), "Purchasing Strategies Across Product Classes," Journal of Consumer Research, 3, (12), 143-154.

-----, Eppen, G.D., and Lieberman, J. (1981), "A Theoretical and Empirical Evaluation of Price Deals in Consumer Nondurables," Journal of Marketing, 45, 116-129.

Bowman, R.D. (1980), Couponing and Rebates, NY: Chain Store Publishing Corp.

-----, (1990), "Sales Promotion," Marketing & Media Decisions, February, 74.

"Business Barometer," (1992) Restaurant Business 10, 2.

Carlino, B. (1989), "It's in the Mail:Ground Round Posts Coupons," Nation's Restaurant News, 3, (10), 10.

Cunningham, R.M. (1956), "Brand Loyalty-What, Where and How Much," Harvard Business Review, 34, (1), 116-144.

Davis, N.R.J. (1992), A Study of the Extent of Brand Loyalty Exhibited by Business Travellers Towards the Lodging Product, Unpublished Master's Thesis, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Dodson, J.A., Tybout, A.M., and Sternthal, B. (1978), "Impact of Deals and Deal Retraction on Brand Switching," Journal of Marketing Research, 15, (2), 72-81.

Donnelly, J.H., "Social Character and Acceptance of New Products," Journal of Marketing Research, 7, (2), 111-113.

Eisenhart, T. (1988), "How to Really Excite Your Prospects," Business Marketing, 7, 44-56.

Exter, T. (1986), "Looking for Brand Loyalty," American Demographics, 5, 32-56.

Feltenstein, S. (1991), "Does Couponing Make Good Business Sense?" Restaurant Business, 1, 152.

Gladwell, N.J. (1990), "A Psychographic and Sociodemographic Analysis of State Park Inn Users," Journal of Travel Research, 28, (4), 15-20.

Gordon, E. (1990), "Restaurant Advertising and Promotions," Restaurant USA, 5, 37-40.

Guadagni, P. and Little, J.D.C. (1983), "A Logit Model Of Brand Choice Calibrated on Scanner Data," Marketing Science, 2, 203-238.

Howard, T. (1994), "Combo-Meal Overload?," Nation's Restaurant News, 1, 29-30.

Hume, S. (1991), "Nielsen Study Shows Coupon Use Up," Advertising Age, 1, 1-3.

Irons, K.W., Little, J.D.C., and Klein, R.L. (1983), "Determinants of Coupon Effectiveness," Advances and Practices of Marketing Science, Proceedings of the 1983 ORSA/TIMS Marketing Science Conference, 157-164.

Iwamuro, R. (1993), "Fast Food Matures into Industry Powerhouse," Restaurants USA, 8, 36-40.

Jacoby, J., Kyner, D.B. (1973), "Brand Loyalty vs. Repeat Purchasing Behavior," Journal of Marketing Research, 10, (2), 1-9.

Jarvis, L.P., Mayo, E.J. (1986), "Winning the Market-Share Game," The Cornell Hotel and Restaurant Administration Quarterly, 27, 11, 72-79.

Jones, M., Zufryden, F. (1980), "Adding Explanatory Variables to a Consumer Behavior Model: An Exploratory Study,"Journal of Marketing Research, 17, 7, 323-334.

Kassarjian, W.M. (1962), "A Study of Riesman's Theory of

Social Character," Sociometry, 25, 9, 213-230.

Klein, R.L. (1985), "How to Use Research to Make Better Sales Promotion Marketing Decisions," Handbook of Sales Promotion, N.Y.: McGraw-Hill.

-----, (1981), "Using Supermarket Scanner Panels to Measure the Effectiveness of Coupon Promotions," Proceedings:

Kuehn, A.A., Rohloff, A.C. (1967), "Consumer Response to Promotions," Promotional Decisions Using Mathematical Models, Boston: Allyn and Bacon, Inc.

League of Women Voters of Montgomery County, Virginia (1994), "Facts for Voters."

Lefever, M.M., and Morrison, A.M. (1988), "Coupon for Profit," The Cornell Hotel Restaurant Administrative Quarterly, 28, (4), 57-63.

Lepisto, L.R., McCleary, K.W. (1988), "The Effect of Multiple Measures of Age in Segmenting Hotel Markets," Hospitality Education and Research Journal, 12, (2), 91-98.

Lesser, J.A., Hughes, M.A. (1986), "The Generalizability of Psychographic Market Segments Across Geographic Locations," Journal of Marketing, 50, 1, 18-27.

Lewis, R.C. (1990), "Are You Listening To Customers-- Or to Competitors?" Hotel and Motel Management, 11, 55.

Lieux, E.M., Weaver, P.A., and McCleary, K.W. (1992), "Lodging Preferences of the Senior Travel Market,"

Unpublished Manuscript Virginia Tech.

Massy, W.F., Frank, R.E., and Lodahl, T. (1968), Purchasing Behavior and Personal Attributes, Philadelphia: University of Pennsylvania Press.

Mayo, E.F., Jarvis, L.P. (1981), The Psychology of Leisure Travel: Effective Marketing and Selling of Travel Services, Boston, MA: CBI Publishing Co., Inc.

McCleary, K., Weaver, P. A. (1991), "Are Frequent Guest Programs Effective?," Cornell Hotel and Restaurant Administration Quarterly, 7, 22.

Montgomery, D.B. (1971), "Consumer Characteristics Associated With Dealing: An Empirical Example," Journal of Marketing Research, 8, (2), 118-20.

Myers, J.G., Stephen, A.G., and William, F.M. (1979), "The Effectiveness of Marketing's 'R&D' for Marketing Management: An Assessment," Journal of Marketing, 43, 17-29.

Narasimhan, C. (1984), "A Price Discrimination Theory of Coupons," Marketing Science, 3, (2), 128-147.

Nielsen, A.C. (1965), "The Impact of Retail Coupons," Journal of Marketing, 10, 11-15.

-----, (1980), Coupons, The Consumer Speaks Out, Northbrook, IL: A.C. Nielsen Company.

Neslin, S.A., Clarke, D.G. (1987), "Relating the Brand Use Profile of Coupon Redeemers to Brand and Coupon

Characteristics," Journal of Advertising Research, 2, 23-32.

-----, Shoemaker, R. (1987), "A Model for Evaluating the Profitability of Coupon Promotions," Marketing Science, 2, (4), 361-388.

-----, Henderson, C., and Quelch, J. (1985), "Consumer Promotions and the Acceleration of Product Purchases," Marketing Science, 4, (2), 147-165.

-----, Shoemaker, R. (1989), "An Alternative Explanation for Lower Repeat Rates After Promotion Purchases," Journal of Marketing Research, 25, 5, 205-213.

_____, Shoemaker, R. (1983), "A Model for Evaluating the Profitability of Coupon Promotions," Marketing Science, 2, 361-388.

NPD/CREST Annual Household Report, 1989, NTC Publishing Group.

Peckham, J.O., Jr. (1985), "Using Scanning Data to Analyze the Effects of Manufacturer's Coupons," Nielsen Researcher, A.C. Nielsen Company, 1-11.

Plummer, J.T. (1974), "The Conceptual Application of Life Style Segmentation," Journal of Marketing, 38, 33-37.

Riesman, D. (1953), The Lonely Crowd, New York: Doubleday Anchor, Books.

Reibstein, D.J., Traver, P.A. (1982), "Factors Affecting Coupon Redemption Rates," Journal of Marketing, Fall,

102-113.

Restaurants USA (1990), 8, 35.

Robinson, W.A. (1987), Best Sales Promotions, Illinois: NTC Business Books.

Russell, C. (1989), "How to Get Invited," American Demographics, 11, (9), 2.

Ryan, D.L. (1973), "The Tools of Promotion," A Speech Given to the Association of National Advertisers, September.

Schewe, C.D., Calantone (1978), "Psychographic Segmentation of Tourists," Journal of Travel Research, 16, (3), 14-20.

Schoifet, M. (1985), "Coupons: Necessary Evil or Effective Vehicle?", Nation's Restaurant News, October 14, F3-F6.

Schultz, D.E., Robinson, W.A., Petrison, L.A. (1993), Sales Promotion Essentials. Illinois: NTC Publishing Group.

_____, and Robinson, W.A. (1982), Sales Promotion Essentials. Illinois: Crain Books

Shoemaker, R.W., and Tibrewala, V. (1985), "Relating Coupon Redemption Rates to Past Purchasing of the Brand," Journal of Advertising Research, 25, (5), 40-47.

-----, (1979), "An Analysis of Consumer Reactions to Product Promotions," Educators' Conference Proceedings, Chicago: American Marketing Association, 244-248.

-----, (1989), "Segmentation of the Senior Pleasure Travel Market," Journal of Travel Research, 3, 14-21.

Teel, J.E., Williams, R.H., and Bearden, W.O. (1980), "Correlates of Consumer Susceptibility to Coupons in New Grocery Product Introductions," Journal of Advertising, 3, 31-46.

Telberg, R. (1985), "Wendy's Discounts Meals as Traffic Counts Soften," Nation's Restaurant News, 11, 2-4.

Third ORSA/TIMS Special Interest Conference on Market Measurement and Analysis, Providence, RI: The Institute of Management Sciences, 118-124.

Vogel, M. (1990), "The Coupons Floods: An Independent's Answer," Pizza Today, 10, 46.

Ward, R.W., Davis, J.E. (1978), "Coupon Redemption," Journal of Advertising Research, 18, (4), 1978, 51-56.

Watkins, T. (1986), The Economics of the Brand, London: McGraw-Hill.

Webster, F.E., Jr. (1965), "The Deal-Prone Consumer," Journal of Marketing Research, 2, (5), 186-205.

Wells, W.D. (1974), Life Style and Psychographics, American Marketing Association, April.

Wilson, R.D., Newman, L.M., and Hastak, M. (1979), "On the Validity of Research Methods in Consumer Dealing Activity: An Analysis of Times Issues," Educators' Conference Proceedings, Chicago: American Marketing Association, 41-46.

Appendix A.

March 22, 1994

Dear Sir/ Madam,

I am a graduate student in the Department of Hospitality and Tourism Management at Virginia Tech collecting data about the use of discount coupons as a requirement for completion my Master's thesis. You are among the selected few who have been chosen to participate in this study.

Please help me by taking a few minutes to complete the enclosed questionnaire. Your response will be used for research purposes and your name will not be associated with the responses and the analysis.

Your participation in this study is greatly appreciated and will provide a significant contribution to research in the hospitality industry. Please return the completed questionnaire in the enclosed, addressed envelope before April 10, 1994. If you have any questions, please feel free to call me at (703) 552-8235.

Thank you very much for your assistance and cooperation.

Sincerely,

(Arunee Phakdeesuparit)

Section I. In this section we are interested in finding out whether you receive pizza coupons. Please select only one answer from each of the following questions:

1. Have you received pizza coupons during the last two months?

   _____ Yes _____ No

2. How often have you eaten pizza and other products at a pizza restaurant during the last two months? (Please circle one.)

   0 1 2 3 4 5 6 7 8 9 10 more than 10

3. How often did you have pizza delivered to your home or picked up pizza to eat at home from a restaurant in the last two months? (Please circle one)

   0 1 2 3 4 5 6 7 8 9 10 more than 10

4. Have you ever used coupons when purchasing pizza during the last two months?

   _____ Yes _____ No

   If the answer is "No" please go to question 7

5. How frequently have you used pizza coupons when you ate at pizza restaurants during the last two months?

   0 1 2 3 4 5 6 7 8 9 10 more than 10

6. How many times did you use pizza coupons when you had pizza delivered to your home or picked up pizza to eat at home from a restaurant during the last two months?

   0 1 2 3 4 5 6 7 8 9 10 more than 10

7. Please answer the following question as best as you can remember by writing in the name of the pizza restaurants that you visited during the last two months in the Blacksburg area, number of visits, and number of times coupons were used with the purchase.

Name of Restaurants	**Number of Times You** Visited that Restaurant	**Number of Times Coupons were Used in Purchase** (If you did not use coupons leave this column blank)
1.		
2.		
3.		
4.		
5.		

8. Please answer the following question as best as you can remember by writing in the name of pizza restaurants in the Blacksburg area from which you have had pizza or other products delivered or you took out to your home during the last two months. Please list the number of times you ordered from that restaurant, and the number of times coupons were used with the purchase.

Name of Restaurants	**Number of Times You** Have Pizza Delivered/taken out	**Number of Times Coupons were Used in Purchase** (If you did not use coupons leave this column blank)
1.		
2.		
3.		
4.		
5.		

9. Please rank in order (1,2,3). Which type of coupon do you redeem most often?

_____ Combination deals (for example, a medium pizza, 5 bread sticks, and a medium soft drink for a single, special price)
_____ Percentage discount (for example, get 10% off the meal)
_____ Dollar off (for example, get $1 off when purchase a medium pizza)

10. Please check (X) the source of coupons that you received during the last two months:

_____ Newspaper (coupons were inserted in newspaper or printed in newspaper).
How often did you receive them? _____
_____ Direct mail (coupons were sent directly to you by mail)
How often did you receive them? _____
_____ Door-Hanging coupons (a book of coupons was delivered by hanging it on your door)_____
_____ All other (coupons received in the store)
How often did you receive them? _____

11. Please choose only one source of the coupons that you redeem most often:

_____ Newspaper (coupons were inserted in newspaper or printed in newspaper)

_____ Direct mail (coupons were sent directly to you by mail)

_____ Door-Hanging coupons (a book of coupons was delivered by hanging it on your door)
_____ All other (coupons received in the store, at another place)

Section II:
Please circle the appropriate response (on a five-point scale) to indicate your degree of agreement or disagreement for the following questions.

1	2	3	4	5
STRONGLY DISAGREE (SD)	DISAGREE (D)	NEITHER AGREE NOR DISAGREE (NAD)	AGREE (A)	STRONGLY AGREE (SA)

	SD	D	NAD	A	SA
1. Coupons increase the frequency of my pizza purchases.	1	2	3	4	5
2. I would not go to a pizza restaurant or order out if I did not have pizza coupons.	1	2	3	4	5
3. Pizza coupons entice me to try new pizza restaurants.	1	2	3	4	5
4. I normally use coupons at the pizza restaurant that I regularly visit.	1	2	3	4	5
5. I carefully compare prices before buying items.	1	2	3	4	5
6. I shop a lot for specials.	1	2	3	4	5
7. I usually watch advertisements for announcements of sales.	1	2	3	4	5
8. When I shop, I usually go to several different stores to get the best prices.	1	2	3	4	5
9. I find myself checking the prices in the grocery store even for small items.	1	2	3	4	5
10. I have favorite brands, but most of the time I buy the brand I have a coupon for.	1	2	3	4	5
11. Redeeming coupons for any product makes me feel good.	1	2	3	4	5
12. Beyond the money I save, redeeming coupons gives me a sense of joy.	1	2	3	4	5
13. A person can save a lot of money using coupons.	1	2	3	4	5

Section III.

Please check one:

1. You are: _____ Male _____ Female

2. You are: _____ Single _____ Married

3. How many children 18 and under live in your home? (circle one)

   0 1 2 3 4 5 more than 5

4. Please check your age bracket:

   _____ Less than 18 _____ 18-25 _____ 26-35

   _____ 36-45 _____ 46-55 _____ Over 55

5. Your education: _____ Did not finish high school _____ High school diploma

   _____ College degree _____ Graduate College degree

6. What is your occupation? _____

7. What is your annual household income?

_____ Less than $15,000 _____ $15,001 -$25,000

_____ $25,001 - $35,000 _____ $35,001 - $45,000

_____ $45,001 - $55,000 _____ $55,001 - $65,000

_____ $65,001-75,000 _____ More than $75,000

8. Which of the following best describes your racial or ethnic identification?

_____ Black/African-American _____ White/caucasian

_____ Asian _____ Hispanic

_____ Other (please specify) _____

VITA

Arunee Phakdeesuparit was born on May 1, 1966, in Suphunburi, Thailand. She received a Bachelor degree in Marketing from Chulalongkorn University Bangkok, Thailand. In August 1992, she entered the graduate school at Virginia Polytechnic Institute and State University to study for a Ph.D. in Hospitality and Tourism Management. Her major area of interest is marketing. She was actively participated in many activities including Hospitality and Tourism week 1994.

She plans to work in the hotel industry when she goes back to Bangkok, Thailand.

Arunee Phakdeesuparit