# Impact of Sales Promotions on Consumer Purchasing Patterns for 

## Non-Durable Goods

Thesis submitted to the Institute of Social Sciences in partial fulfillment of the requirements for the degree of

Master of

Business Administration
by
Deniz Kalafat

Boğaziçi University

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To My Father...

## ACKNOWLEDGEMENTS

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ABSTRACT<br>Impact of Sales Promotions on Consumer Purchasing Patterns for Non-Durable Goods<br>by<br>Deniz Kalafat

This thesis investigates the impact of sales promotions on consumer purchasing patterns in Turkish non-durable goods sector and aims to distinguish between purchasers of promoted consumer non-durables from non-purchasers, along certain psychographic and demographic parameters.

The primary objective of this research is to identify the factors underlying the impact of sales promotions on consumer purchasing patterns for non-durable goods and to investigate how consumers differ in their responses to different promotion types under a diverse set of promotional conditions. The study also attempts to present a framework for identifying the deal-prone consumer segments and to reveal how dealprones differ from non-deal-prones in terms of certain psychographic and demographic variables.

A self-administered, undisguised and structured questionnaire is utilized to measure consumers' responses to sales promotions. The research questionnaire consists of a number of Likert type questions, some multichotomous fixed alternative questions, and a few open-ended questions. The questionnaire is applied to a sample of 270, which is drawn from the population of consumers of non-durable goods; 197 questionnaires have been found eligible for inclusion in the statistical analyses. The data collected are analyzed with the Statistical Package for Social Sciences using frequencies, cross-tabulations, t-tests for independent and paired samples, one-way analyses of variance, discriminant and factor analyses.

The results of the study show that, purchasing a promoted product is associated with deal-proneness. Purchasers of promoted products are more deal-prone, more responsive to the advertisements of promoted products and more likely make
unplanned promotional purchases when compared to non-purchasers. Another significant finding is that, there is an inverse relationship between deal-proneness and brand-loyalty, that is, deal-prone consumers are found less likely to be brand-loyal. Interestingly, liberal consumers are found to be more deal-prone, to make impulsive purchases and to substitute brands. On the other hand, female consumers are found more likely to buy promoted products. Moreover, deal-proneness is found to decrease with increased age and education and to increase with increased levels of income Finally, price discounts, bonuses (gifts, free extra products), and free samples are found to be the most preferred types of consumer-oriented sales promotions. The study ends with implications for managers and for researchers.

KISA ÖZET<br>Satış Promosyonlarının Tüketicilerin Dayanıksız Tüketim Maddeleri Satın Alma Biçimlerine Etkileri-<br>Yazan<br>Deniz Kalafat

Bu tez, Türkiye dayanıksız tüketim maddeleri sektöründe, satı̧ promosyonlarının tüketicilerin satın alma davranışlarına olan etkilerini incelemekte ve promosyonlu dayanıksız tüketim maddesi satın alanlarla almayanlanı psikografik ve demografik parametreler çerçevesinde ayırdetmeyi amaçlamaktadır. ${ }^{\text {. }}$

Araştırmanın ana amacı, satış promosyonlarının tüketicilerin dayanıksız tüketim maddeleri satın alma biçimlerine etkileriyle ilgili faktörleri belirlemek ve tüketicilerin farklı şartlar altında değişik promosyon çeşitlerine gösterdikleri reaksiyonlarda nasıl farklılaştıklarını incelemektir. Çalışma, aynı zamanda, promosyonlara eğilimli olanlanı belirlemek için bir çerçeve oluşturmayı ve promosyanlara eğilimli tüketicilerle eğilimli olmayan tüketicilerin psikografik ve demografik değişkenler bazında nasıl farklıık gösterdiklerini ortaya koymayı amaçlamaktadır.

Tüketicilerin satış promosyonlarına olan tepkilerini ölçmek amacıyla, kendi kendine uygulanan, amacı açık, yapılı bir anket kullanılmıştır. Likert türü ve çoklu-sabit seçenekli sorularla, az sayıda açık-uçlu sorunun oluşturduğu anket, tüm dayanıksız tüketim maddeleri tüketicilerinden alınan 270 kişilik bir örnekleme uygulanmıştır. Anketlerin 197 tanesi istatistik analizlerde kullanılmaya uygun görülmüştür. Toplanan veriler SPSS (Sosyal Bilimler için İstatistik Paketi) programı kullanılarak frekans, çapraz tablolama, t-testi, tek yönlü değişirlik, diskriminant ve faktör analizlerine tabi tutulmuştur.

Araştırmanın sonuçları, promosyonlu ürünler satın almanın promosyonlara eğilimli olmakla ilişkili olduğunu göstermektedir. Promosyonlu ürünler satın alanların, almayanlara göre, promosyonlara daha eğilimli oldukları, promosyonlu ürünlerin reklamlarına daha çok tepki verdikleri ve promosyonlu ürünleri planlamadan satın
alma olasilhklarının daha yüksek olduğu saptanmıştır. Diğer bir önemli bulgu ise, promosyonlara eğilimli olmak ile marka bağımısı olmak arasındaki ters ilişkidir: yani, promosyonlara eğilimli tüketiciler daha az marka bağımlıdır. İlginç bir bulgu ise, liberal tüketicilerin promosyonlara daha eğilimli olmaları, ani olarak ve spontane satın almalanı ve marka değiştirmeleridir. Diğer yandan, kadın tüketicilerin promosyonlu ürün alma olasılıklarmın daha yüksek olduğu bulunmuştur. Üstelik, sonuçlara göre, promosyonlara eğilimli olma olasilığı, yaş ve eğitim düzeyi arttıkça, azalmakta, gelir düzeyi arttıkça ise artmaktadır. Son olarak, fiyat indirimlerinin, bonusların (hediyeler, ücretsiz mal fazlaları) ve ücretsiz numunelerin en çok tercih edilen tüketici odaklı satıs promosyonu türleri olduğu tespit edilmiştir. Tezin son bölümünde ise, yönetici ve araştırmacılar için, araştırma bulgularına dayanan öneriler belirtilmektedir.

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## 1. INTRODUCTION

The importance of sales promotions has grown dramatically in recent years, and sales promotions have become the most popular tool in the marketer's kit. As sales promotions boomed in practice, they became an intensifying focus of academic research and interest. This thesis aims to investigate extensively consumer oriented sales promotions for non-durables since consumer promotions constitute a significant part of the marketing effort of consumer non-durables. The study attempts to provide a better understanding of sales promotions in general but focuses especially on coupon and price related promotions within this broad framework. The research aims to differentiate between deal prone and non-deal prone consumers with the help of constructs such as brand loyalty and value consciousness as well as demographic and psychographic variables such as liberalism and variety seeking. The thesis also dwells upon the associations between demographics and preferences for different types of sales promotions to provide insights for designing better and tailor-made sales promotions for different market segments.

The thesis begins with an extensive literature review on sales promotions covering an overview of sales promotions, couponing, price promotions, coupon proneness, deal proneness, value consciousness, brand switching, purchase acceleration, stockpiling, and consumer characteristics comprehensively.

The chapter on research design and methodology includes the research objectives, the theoretical framework of the thesis with the dependent and the independent variables
as well as the hypotheses. Population and sample, sample size, and the composition of the sample is discussed in the section on sampling. Data collection methods and instrument covers the method evaluation, the research design, and the instrument. Finally data analysis methods and the limitations of the study are explained in this chapter.

Following the research design, the findings are presented and evaluated. First, general findings are discussed, and then findings on purchasing promoted products are tabulated. The findings on coupon / deal proneness, value consciousness, brand loyalty, consumer characteristics, and types of consumer oriented sales promotions are elaborated on individually.

In the last chapter, conclusions are drawn from the findings and interpretations are made. Finally, implications for managers as well as academicians are discussed along with suggestions for future research.

## 2. LITERATURE REVIEW

There is diverse literature and numerous studies on a broad phenomenon like sales promotions. Therefore the literature review is carried out and displayed under six main headings: 1) overview of sales promotions; 2) couponing; 3) price promotions; 4) coupon-proneness, deal-proneness, and value-consciousness 5) brand switching, purchase acceleration, and stockpiling ; 6) consumer characteristics. The last section summarizes all reviewed literature by tabulating the results of past researches on sales promotions.

The overview of sales promotions simply starts with the definition of sales promotions and touches upon the rapid growth of sales promotions, giving explanations for this growth. Then, it goes on to discuss the sales promotion objectives and the debate on sales promotions. Finally, it focuses on different types of consumer-oriented sales promotions.

The section on couponing particularly deals with the use and effectiveness of coupons. The price-promotion section specifically reviews the literature on pricerelated consumer promotions in conjunction with such issues as brand evaluations, deal elasticities, repurchase probabilities, and promotion thresholds. In the fourth part, coupon and deal-proneness as well as value-consciousness are elaborated upon. Important interlinked variables such as brand loyalty and brand switching, purchase acceleration in time and stockpiling are discussed in the next section. Finally, all demographic and psychographic parameters are examined under consumer
characteristics. The last section merely summarizes all literature that is reviewed for the purposes of this thesis.

### 2.1. OVERVIEW OF SALES PROMOTIONS

### 2.1.1. What is Sales Promotion?

Sales promotions have been defined as "action-focused marketing events whose purpose is to have a direct impact on the behavior of the firm's customers." ( Blattberg and Neslin 1990). More specifically, sales promotion refers to those promotional activities which enhance and support mass selling and personal selling, and which help complete and/or co-ordinate the entire promotional mix (advertising, personal selling, publicity, sales promotion) and make the marketing mix ( product, price, promotion, channels of distribution) more effective (Cooke, 1985). Each element in the basic marketing mix is supplemented by a group of marketing instruments whose main purpose is to induce immediate buying behavior by strengthening the basic mix element for a short period of time. As an inevitable tool of the promotional mix, sales promotion is regarded as a set of specific support activities, which are distinct from advertising, personal selling, or public relations. Sales promotion is media and non-media marketing pressure applied for a predetermined, limited period of time at the consumer, retailer or wholesaler in order to stimulate trial, increased consumer demand or improved product availability (Bennett, 1988). Likewise, Kotler (1994) classifies sales promotion as a diverse
collection of incentive tools, mostly short term, designed to stimulate quicker and/or greater purchase of particular products/services by consumers or the trade.

Sales promotion has been one of the most exciting and rapidly growing areas in the promotional strategy field over the last two decades. Sales promotion includes consumer-oriented "pull" activities such as product sampling, coupons, price-off offers, refunds and rebates, bonus packs, contests and sweepstakes, premiums, prizes, patronage rewards, free trials, warranties, demonstrations, and direct mail. It also includes wholesaler- and retailer-oriented "push" activities such as co-operative advertising, promotional allowances, dealer sales contests, incentive programs, point-of-purchase (POP) displays, management assistance, slotting allowances and fees, trade shows, exhibits and demonstrations. Another type of sales promotion is sales force promotion which includes bonuses, contests, sales rallies directed at the sales people. For the purposes of this thesis, only consumer-oriented sales promotions will be encompassed here.

### 2.1.2. Rapid Growth of Sales Promotion

The allocation of money between sales promotions and advertising is a decision which affects the success and profitability of every consumer products company. The saturation of markets and the urge to drive up market shares have been major underlying causes of a significant change of emphasis between theme advertising and sales promotions. As a result of this change of emphasis, sales promotion expenditures have been growing rapidly over the past two decades. While product marketers in the United States spend about 25.1 percent of their marketing expenditures on media
advertising, they dedicate 25.4 percent of their total marketing spending to consumer promotions and 49.5 percent to trade promotions, reaching a total promotional expenditure of 75 percent of their budgets which had been 58 percent only two decades ago (Hume, 1992). Annual sales promotion expenditures, totalling over \$ 100 billion, have exceeded those of advertising every year since 1969 ( Bowman, 1988), signalling that the trend is continual. Furthermore, the rate of increase in promotional budgets exceed the rate of increase in advertising budgets. Compared to the advertising spending's annual rate of increase of 7.6 percent, that of sales promotion expenditures has been as high as 12 percent (Strazewski, 1988). Although the delineation of activities as "pure advertising" or "pure sales promotion" has been debated, marketers continue to place greater emphasis on sales promotion programs to promote their products and services (Bowman, 1985).

Several factors have encouraged marketers to make greater use of sales promotions (Schultz 1987; Strang 1976; Dickson and Sawyer 1990; Quelch 1983; Addison 1988).

1. Rising prices and advertising "clutter" - eroding advertising's cost effectiveness as consumers become increasingly desensitized to mass media advertising.
2. Sales promotions becoming "respectable" - through increasing use by market leaders and increasing professionalism among sales promotion agencies.
3. Increased impulse purchasing - retailers are responding to greater impulse buying and value seeking among consumers by pushing manufacturers into more, and more effective, sales promotions.
4. Shortening time horizons - increasing rivalry and accelerating product life cycles make the fast sales boost that promotions are perceived to offer, attractive. According to Schulz (1987), the growth of the short-term management orientation demands short-term success. Schulz argues that sales promotion is perfectly suited to this new management style and that for many marketing managers, faced with increasing demands by management for immediate sales and profit results, the switch from long-term franchise building through media advertising to short-term sales promotional incentives is natural.
5. Micro-marketing approaches - as a response to fragmenting markets, where sales promotions can provide more tailored and targeted communication than mass media.
6. A "snowball" effect in some markets - Lal (1990) suggests that practitioners in markets where promotions are commonplace are virtually obliged to follow suit, or risk losing market share and competitive position. The work of Fader and McAlister ( quoted in Lattin and Bucklin 1989 ) suggests that the proliferating promotions in many markets train consumers to buy promoted goods.
7. "Manageability" - the other mix elements can appear relatively unwieldy as competitive weapons. Developing new products is lengthy, costly and risky. The
stakes are often too high to permit experimentation, and success depends heavily on the input of other functions. Changing pricing structures can be costly in administrative and systems management terms. Channel changes can be difficult to achieve frequently or quickly.
8. Measurability - assessing the impact of sales promotion can be problematic, but authors such as Doyle and Saunders (1985) and Moriarty (1985) have proved that, with care, it can be done with some precision. Moreover, the problems of measurement are fewer than for advertising (Schultz 1987 ).

These factors contributed to the rapid growth of sales promotion, particularly in consumer markets. Kotler (1994) outlines some of these factors, along with additional ones, under two main categories: internal and external factors. According to Kotler (1994), among the internal factors are the acceptance of promotion by top management as an effective sales tool, the qualification of more product managers to use sales promotion, and the greater pressure upon product managers to increase their current sales. On the other hand, external factors include following: The number of brands has increased; competitors use promotions frequently; many brands are at parity; consumers are more deal oriented; the trade has demanded more deals from manufacturers; and advertising efficiency has declined because of rising costs, media clutter, and legal restraints.

Sales promotion likely will continue to grow. Schulz (1987) lists three major factors which will continue to drive sales promotion investments at the expense of media advertising: (1) the growth of trade concentration at the retail level, (2) the
manufacturer's emphasis on the brand management system and its inherent short-term planning and (3) the increasing availability of scanner data which enable marketers finally to learn how sales promotion works. However, excessive promotional activity may damage a product's image, diminish brand loyalty, and possibly even reduce consumption (Strang, 1980). The rapid growth of sales promotion media has created a situation of promotion clutter, similar to advertising clutter. There is a danger that consumers will start tuning out, in which case sales promotion media will weaken in their ability to trigger purchase (Kotler, 1994).

Advertising and sales promotion both play important roles in most companies' promotional mixes. A study based on interviews with marketing executives who represent a variety of grocery, personal care, toiletry, and household products determined that advertising plays a dominant role in the promotional mixes of more profitable brands (Strang, 1980). Advertising also plays a dominant role in the promotion of premium-priced brands, however, marketers of low-growth brands place greater emphasis on sales promotion. These findings taken together suggest that managers of successful brands support success with advertising, while managers who desire greater success (faster growth, larger market shares, etc.) attempt to achieve it with relatively greater emphasis on sales promotion. At this point there seems to be a necessity to blend together various promotional tools in order to achieve communication functions without inordinate emphasis on any one tool. The relative expenditures in advertising and promotions should be in proportion to the relative opportunities among price and brand buyers (Brown, 1974). The manufacturer has the ability to use promotions as a tool for generating increased market share and sales among price buyers in a relatively short time. At the same time, advertising can be
directed against the brand-loyal segment of the market with the hope of increasing the core of loyal brand-buyers.

### 2.1.3. Sales Promotion Objectives and The Debate

Sales promotion is becoming increasingly important in marketing as a way of increasing the demand for new products, a substitute for price competition, and a way of differentiating similar products. The basic goals of sales promotion are either identical or very similar to the objectives of advertising and personal selling: directly or indirectly, to promote the product. Mentzer and Schwarz (1985) list six specific objectives of sales promotion:

1. Introduce New Products - Sales promotions are often used to motivate consumers to try a new product or to induce business buyers to accept it for resale.
2. Attract New Customers - Effective marketing executives are constantly on the lookout for ways to attract additional customers who must be won away from other firms. Sales promotion devices are used to encourage consumers to try an unfamiliar brand or shift their patronage to a new retail outlet.
3. Induce Present Customers to Buy More - Producers of consumer goods use promotions to encourage consumers to think of more ways and more occasions for using a product.
4. Help the Firm Remain Competitive - Because virtually all companies marketing consumer goods conduct sales promotion activities, a company may have to engage in sales promotion simply to stay -competitive.
5. Increase Sales in Off Seasons - Because many products have seasonal consumption patterns, an important aim of many sales promotion campaigns is to encourage the use of product in off seasons.
6. Increase the Inventories of Business Buyers - A key objective of many business sales promotions is to increase the size of retailers' inventories and thereby to push the retailer to sell the product more aggressively, and reduce production and distribution costs.

In addition to these objectives, Kotler (1994) lists two additional objectives of sales promotion: reward loyal customers and increase the repurchase rates of occasional users. Whatever the objective might be, most researchers agree about promotions' effectiveness in boosting short term sales, but a debate rages about their long term effects. Most observers feel that dealing activities do not build long-term consumer loyalty, as does advertising. Brown (1974) concludes that sales promotions do not tend to yield new, long-term buyers in mature markets because they attract mainly deal-prone consumers who switch among brands as deals become available. Jones (1990) argues that brands supported more by advertising than by promotions often carry a higher-than-average list price without much trouble and tend therefore to be more profitable. The consumer pays the premium price because the advertised brands have offered more psychological added values than heavily promoted brands.

It has also been observed that repeat purchase probabilities for a brand after a promotional purchase are lower than after a non-promotional purchase (Shoemaker and Shoaf 1977; Guadagni and Little 1983 ; Jones and Zufryden 1981). Reasons for this include the following.

- A promotion is an "external" stimulus which, once removed, won't create repeat purchases (Dodson et al. 1978; Bawa and Shoemaker 1987).
- Consumers' price expectations (or reference price) will be lowered by promotional pricing and they will resent paying post-promotional "normal" prices (Monroe 1973; Winer 1986; Kalwani et. al. 1990).
- Promotions "use up" the low probability purchasers, whose failure to repurchase after the promotion will depress the observed repeat purchase rate (Neslin and Shoemaker 1989).
- Promotional pricing will lower a brand's evaluation because people use price as a surrogate measure of quality (Dodson et al. 1978). Doob et. al. (1969) suggest that consumers reason that "I paid a lot for this brand, therefore I must really like it"; so lowering the price may devalue the brand in consumers' eyes.
- Regular purchasers stockpile during promotions and then buy less afterwards (Frank and Massey 1971).
- Sales promotions attract the brand switchers, because users of other brands and categories do not always notice or act on a promotion. Brand switchers are primarily looking for low price, good value, or premiums and it is unlikely that they could be turned into loyal buyers (Kotler, 1994).
- In markets of high brand similarity, sales promotions produce a high sales response in the short run but little permanent gain in market share. In markets of high brand dissimilarity, sales promotions can alter market shares more permanently (Kotler, 1994).

Many marketing professionals fear that sales promotion undermines the brand's franchise. A brand has a consumer franchise if it has developed a loyal following and its customers walk into a store, demand the product from the retailer, and are not willing to take a substitute (Blattberg and Neslin, 1989). A strong consumer franchise is one built upon favorable brand attitude rather than on routinized repeat purchasing. As a result of this favorable brand attitude, the utility of the product exceeds similar products. A strong franchise will be resilient to competitive activities, whether they include product changes, advertising, pricing, or promotion. Blattberg and Neslin argue that sales promotion diverts consumers' attention from brand attributes and channels attention toward finding the best deal. In the language of behavioral conditioning, the behavior of finding a good deal is what gets rewarded by frequent promotions (Rothschild, 1987; Blattberg and Neslin, 1989). Another more damaging possibility is that frequent promotions directly undermine brand attitudes. For example, the consumer questions why it is necessary to keep promoting the product and concludes there is something wrong with the product. This is a type of attribution
referred to as "object perception" ( Mizerski et al., 1979). Another type of attribution that may undermine the brand franchise is called self-perception (e.g., Dodson, et. al., 1978). Under this theory the consumer attributes his or her purchasing of the brand to the available promotion, not to any redeeming qualities of the brand. This undermines favorable attitudes toward the brand that are the foundation of a sound consumer franchise and the image of the promoted brand in the consumer's eyes is devalued. Promotions also might undermine the brand's consumer franchise, if consumers form quality perceptions of the brand based on price. Frequent price cutting may result in the consumer lowering her / his reference price for the brand resulting in a lower quality perception of the brand.

There are other hazards of sales promotions put forth in some studies. Some researches like Jones (1990) are convinced that most of the sales increases provided by the price reductions yield a lower profit than before the sales rice. Jones (1990) argues that "in most circumstances, manufacturers that promote heavily are deliberately exchanging profit for volume; in other words, making less profit on more sales, or to make the point more crudely, slicing into their own margins in dumping their merchandise"(p.148). Jones (1990) states that there is overwhelming marketplace evidence that the consumer sales effect is limited to the time period of the promotion itself. A price-off promotion causes sales to rise, but once the promotion stops, they return to their original level. According to Jones (1990), promotions fuel the flames of competitive retaliation far more than other marketing activities. As a result, they bring diminishing returns with frightening rapidity.

On the other hand, some other researches demonstrate that carefully designed promotions can enhance a brand's positioning, and thus feed directly into a stronger brand franchise. A number of researchers conclude that if consumers are satisfied by a promoted brand, then they will be more likely to repurchase in future (Cotton and Babb 1978; Rothschild and Gaidis 1981). There is also evidence on the basis of a review of panel data analyses as well as an original empirical test that price promotions don't lower consumer perception of brand quality (Davis et. al. 1992) and that they don't alter the long term sales trends for established brands (Peckham 1973; Brown 1974). Regarding the negative after-effects of sales promotions, Grover and Srinivasan (1992) fail to observe significant troughs after sharp promotional peaks in brand sales. There is some evidence to suggest that sales promotion's negative impact on consumer perceptions may be limited only to consumers who have rarely, if ever, tried the promoted brand (Ortmeyer and Huber, 1990). Furthermore, Johnson (1984) finds that increased promotional spending does not have a significant negative effect on brand loyalty. Farris and Quelch (1987) counter that sales promotion provides a number of benefits that are important to manufacturers as well as consumers. Sales promotions enable manufacturers to adjust to short-term variations in supply and demand. They enable manufacturers to charge a higher list price and induce consumers to try new products instead of never deviating from their current ones. They lead to more varied retail formats, giving consumers more choice. They promote greater consumer awareness of prices and permit manufacturers to sell more than they would normally sell at the list price. They help the manufacturer adapt programs to different consumer segments. Consumers themselves enjoy some satisfaction from being smart shoppers when they take advantage of price specials.

The lack of consensus among researchers into the effect of promotions is not the only problem which the practitioner or academic faces when trying to learn from the established literature (Peattie and Peattie, 1993). There are further complicating factors in trying to apply the lessons learnt.

- An over-reliance on price. The research conducted so far is heavily biased towards price-based promotions. Such promotions assume that consumers are price averse or value seeking (Tellis and Gaeth, 1990) and are price aware. In fact customers can often be to some extent price-seeking, because of the use of price as a surrogate measure for quality (Tellis and Gaeth, 1990). Dickson and Sawyer (1990) found that consumers are often surprisingly hazy about the price details of their purchases.
- Product variations. Most promotions research relates to only one or two types of product. The response to promotions has been shown to vary according to the product's stage in its life cycle (Peckham, 1973) and its familiarity (Cotton and Babb, 1978). So the effectiveness of a promotion for one product type will not guarantee its success for others.
- Consumer variations. The response to promotions varies according to the consumer's level of product information (Tellis and Gaeth, 1990), and their expectations of promotion frequency and attractiveness (Lattin and Bucklin, 1989; Krishna et. al., 1991). Numerous researches suggest that responses to different types of promotion also vary according to consumer's age, gender, level of income, and other demographic variables.
- Side effects. Promotion may bring about changes other than the conventional aims of encouraging consumer trial, brand switching or stockpiling. Promotions may raise product awareness among consumers regardless of short-term purchasing patterns (Lattin and Bucklin, 1989); they may lead to store substitutions as well as brand or product substitutions (Kumar and Leone, 1988; Walters, 1991); and they may stimulate sales of complementary products (Berman and Evans, 1989; Walters, 1991).
- Cross promotional effects. A promotion may be affected by complementary trade promotions; by linkages with advertising and by the presence of simultaneous competitor promotions.


### 2.1.4 Consumer-Oriented Sales Promotions

Considering the fact that the scope of the research is limited to consumer-oriented sales promotions, this section will elaborate on different types of consumer-oriented sales promotions. Those types of sales promotion activities and incentive tools directed at the consumer can be regarded as consumer-oriented sales promotions- or simply consumer promotions. The objective for the consumer promotion impacts the type of promotion that is suitable. Kotler (1994) states that incentive-type promotions are used to attract new triers, to reward loyal customers, and to increase the repurchase rates of occasional buyers. On the other hand, when new products are being introduced, three major types of sales promotion effort may be utilized: (1) sampling, (2) couponing, and (3) money refund offers; when the goal is to increase sales of an existing product, major alternatives include (1) price-off promotions, (2)
premiums, and (3) consumer contests (Shimp, 1993). The different types of consumer promotion tools that are commonly employed by marketers and that will be analyzed and discussed throughout the thesis can be briefly summarized as follows:

1-Sampling: By definition, "sampling includes any method used to deliver an actualor trial-size product to consumers" (Engel et.al. 1991, p. 491). In simple terms, Kotler (1994) defines samples as offers of a free amount of a product or service. Marketers deliver samples in a variety of ways (Engel et.al. 1991): (1) by direct mail, either alone or in co-operation with other brands; (2) through flat samples included in print media; (3) door to door by special distribution crews; (4) in or on the package of another product that serves as the sample carrier; (5) at high traffic locations, such as shopping centers, movie theaters, airports, or special events; and (6) in store, where demonstrator samples are available for trial.

Sampling is an effective but rather costly means of introducing a new product. "When the objective is to reach a broad cross section of consumers, door-to-door and mail delivery are the most effective means. The other sampling methods cost substantially less but do not reach nearly as many consumers" (Engel et.al. 1991, p. 491). When used as part of a coordinated promotional campaign to introduce a new product, the catalytic effect of sampling on trial usage and subsequent repurchase can be sufficiently strong to more than defray the expense of sampling (Shimp, 1993). Furthermore, a research conducted by Hamm et. al. (1969) clearly shows that free sample distribution is helpful in improving attitudes toward the product and increasing the intention to buy.

2-Price Incentives: The use of a short-term reduction in price to encourage trial use of a new product or to stimulate demand for an established product is referred to as offering a consumer deal. Such deals are most frequently communicated to consumers by means of coupons and price-off promotions and are used to stimulate further consumer response in the short run (Shimp, 1993).

A price-off promotion entails a reduction in a brand's regular price and it is clearly labelled as such on the package (Engel et.al. 1991). According to Engel et. al. (1991), price-off promotions are effective when the marketer's objective is any of the following: (1) to reward present brand users; (2) to get consumers to purchase larger quantities of a brand than they normally would (i.e., to load them), thereby effectively pre-empting the competition; (3) to establish a repeat purchase pattern after an initial trial; (4) to ensure that promotional dollars do, in fact, reach consumers (no such assurance is possible with trade allowances); (5) to obtain off-shelf display space provided that display allowances are offered to retailers; and (6) to provide the sales force with an incentive to obtain retailer support. Engel et. al. (1991) argue that priceoffs cannot reverse a downward sales trend, produce a significant number of new users, or attract as many trial users as sampling, coupons, or premium packs. The authors also believe that retailers often dislike price-offs because they create inventory and pricing problems, particularly when a store has a brand in inventory at both the price-off and regular prices. Despite trade problems, however, price-offs have strong consumer appeal.

3- Couponing: The use of coupons as a means of sales promotion is very closely associated with price incentives. In fact, coupons are the major medium by which the
manufacturer offers the consumer a price deal (Shimp, 1993). "A coupon is a promotional device that provide cents-off savings to consumers upon redeeming the coupon" (Engel et.al. 1991, p.496). They are certificates entitling the bearer to a stated saving on the purchase of a specific product (Kotler, 1994). Coupons are delivered through a variety of modes, including newspapers, magazines, free-standing inserts, direct-mail, in or on packages, and increasingly, at the point-of-purchase (Engel et.al. 1991). Engel et. al. (1991) state that not all delivery methods have the same objective. Coupons distributed at the point-of-purchase provide immediate rewards to consumers and encourage trial purchases. Mail- and media-delivered coupons delay the reward, although they also generate trial purchase behavior. In comparison, package delivered coupons are used to accomplish franchise holding rather than product trial.

4- Premiums: "A premium is the offer of some type of merchandise or service either free or at a bargain price to induce purchase of another product or service offering" (Shimp, 1993, p.555). Engel et. al. (1991, p.512) definẹ premiums more broadly as "articles of merchandise or services (e.g., travel) offered by manufacturers to induce action on the part of the sales force, trade representatives, or consumers". Although premium promotions vary greatly, their principal purpose is quite specific: to induce consumers to change the brands or amount purchased (Shimp, 1993). Different forms of premium offers, which are used to motivate consumers, include free-in-the-mail premiums; in-, on-, and near-pack premiums; and self-liquidating premiums. All three forms serve fundamentally different purposes (Engel et.al. 1991): free-in-the-mail premiums are useful primarily for generating initial brand trial or retrial; in-, on-, and
near-pack premiums serve franchise-holding purposes; and self-liquidators perform image-reinforcement functions.

5- Bonus Packs: These are "extra quantities of a product that a company gives to consumers at the regular price" (Engel et.al. 1991, p.518). Bonus packs are sometimes used as an alternative to price-off deals when the latter are either overused or resisted by the trade. The extra value offered to the consumer is readily apparent and for that reason can be effective in loading current users and thereby removing them from the market-a defensive tactic that is used against aggressive competitors. A potential drawback of bonus packs is that a large proportion of the bonus-pack merchandise will be purchased by regular customers who would have purchased the brand anyway (Engel et.al. 1991). Of course, this is not a drawback if the explicit purpose of the bonus-pack is to reward a brand's present customers.

6- Refunds and Rebates: "The terms refund and rebate both refer to the practice in which manufacturers give cash discounts or reimbursements to consumers who submit proofs of purchase" (Engel et.al. 1991, p.520). Though often used interchangeably, a refund typically refers to cash reimbursement for packaged goods, whereas a rebate more often refers to reimbursements for durable goods. Both refunds and rebates offer consumers delayed rather than immediate value since the consumer has to wait to receive the reimbursement . Packaged-good marketers are fond of refund offers because they stimulate purchase behavior and provide an alternative to the use of coupons (Engel et.al. 1991).

7- Contests and Sweepstakes: "Contests and sweepstakes offer consumers the opportunity to win cash, merchandise, or travel prizes" (Engel et.al. 1991, p.520). In a sweepstakes, winners are determined purely on the basis of chance. Accordingly, proofs of purchase cannot be required as a condition for entry. In a contest, the consumer must solve the specified contests problem and may be required to submit proofs of purchase. Contests may involve submitting photographs, writing essays, answering difficult questions, which are to be judged by a jury. On the other hand, an example of a sweepstakes is sending in a freely available certificate which entitles the consumer to the chance of winning a prize in cash, goods, or services (Boddewyn and Leardi, 1989). In comparison to other means of sales promotion, contests and sweepstakes are considered to be potentially as strong as the strongest premium offer (in-pack) and stronger than the weakest premium offer (self-liquidating) (Shimp, 1993).

8- Patronage Awards: "Patronage awards are values in cash or in other forms that are proportional to one's patronage of a certain vendor or group of vendors" (Kotler, 1994, p.669). Most airlines offer "frequent flyer plans", providing points for miles travelled that can be turned in for free airline trips.

9- Free Trials: "Free trials consist of inviting prospective purchasers to try the product without cost in the hope that they will buy the product" (Kotler, 1994, p.670).

10- Continuity Offers: Continuity offers "are designed for long-term action by encouraging consumers to purchase the product at more frequent intervals" (Boddewyn and Leardi, 1989, p.367). They include stamp plans (collecting a certain
number of stamps that may later be traded for cash, merchandise or a combination of the two) and in/on pack continuity premiums encouraging the consumer to complete a set of merchandise by purchasing the promoted brand repeatedly in order to acquire additional / complementary units of the product offered as a premium.

11- Overlay Programs: "The use of two or more sales-promotion techniques in combination with one another is called an overlay, or combination program" (Engel et.al. 1991, p.523). For example, a price-cut, feature, and display may be used together; a coupon and a contest or self-liquidating premium may be used together; or a rebate may be used in conjunction with promotional advertising. Media clutter is an ever-growing problem facing marketers. When used individually, sales promotion tools, particularly coupons, may never be noticed by consumers. A combination of tools- such as the use of a coupon offer with another promotional device- increases the likelihood that consumers will attend a promotional message and process the sales-promotion offer .That is, a threshold promotional level must be present in order to be noticed by consumers. What is more striking about the impact of overlay programs is the interaction effect which has been demonstrated by experimental research. The total increase in sales when implementing several promotional tools may be different than the sum of the impacts if these tools are implemented separately. In a 1989 study, Blattberg and Neslin examine the interaction effect of combination program. They show that the effect of a $30 \%$ price discount alone is 555 ( 5.5 times normal sales increase), while the effect of a major ad alone is 185 . However, the effect when both a major ad and $30 \%$ price discount are used together is 1028 . This means there is an interaction, because summing the two effects would result in an index value of 740 or an increase of 7.4 times normal sales.

12- Tie-In Promotions: "The simultaneous promotion of multiple brands in a single promotional effort is called a tie-in, or joint promotion" (Engel et.al. 1991, p.523). By definition, a tie-in promotion involves the pooling of resources between two or more products, brands, or services. The exact nature of the pooling can take various forms. Two major forms are intra- and inter- company tie-ins. Intra-company pooling involves a joint sales promotion for two or more distinct brands for a single company. Inter-company tie-ins involve coordinated activities between products from distinct companies that are not in direct competition with one another and which, typically, complement one another (Engel et.al. 1991).

### 2.2. COUPONING

Manufacturers' use of coupon promotions has been climbing at a rapid pace. Couponing has become an increasingly significant promotional tool for many manufacturers and several non-traditionally couponed 'products are taking advantage of consumer interest in coupons. As a result, a growing number of coupons are being distributed in United States every year. As with all forms' of sales promotion, there are many potential marketing objectives that can be served by coupons (Neslin, 1990). These range from pre-empting a competitive new product, to attracting new triers, to acting as a price discrimination device. However, the core question with respect to couponing is: what is its effect upon brand sales?

While some people have supported and accepted couponing, some others have raised criticisms about the use and effects of coupons. In his article, Antil (1985) evaluates the value of couponing, responds to several criticisms of couponing and argues that
coupons in reality could be in the best interest of consumers. A major criticism is that the use of coupons increases the total costs of products to the consumer. Antil's response to this is that couponing costs are estimated to be only 3 percent of the total dollars invested in promotion. Therefore, if couponing costs were entirely eliminated, the direct benefit to the consumer would relatively be insignificant. Moreover, it is highly unlikely that if couponing expenditures were eliminated, these cost savings would be completely reallocated to lower retail prices. A second criticism has been that coupons are unfair in the sense that nonusers pay higher prices for products than coupon users and thereby subsidize coupon users. Antil's argument is that the difference between the total costs of the user and nonuser is an opportunity cost for the user, not a subsidization. By not taking advantage of the coupons available, the nonuser is simply foregoing an opportunity to save money- there is no transfer of funds from one group to the other. It is the consumer's option to decide if it is worth the time and effort to save and use available coupons. A third criticism is that a saver has no means to protest against coupons and that sovereignty of the consumer is in jeopardy. The author states, however, that if one does not use a coupon, no savings can result, but this is purely at the option of the consumer. If a consumer does not like coupons, is too busy to collect them, or for whatever reason, does not take advantage of them, he or she can simply ignore them. Antil concludes that the continued growth in coupon distributions and redemption is very strong evidence of the high level of consumer and manufacturer interest in coupons. He argues that the 75 percent of households who use coupons undeniably save money-some fairly substantial amounts on a regular basis and that most consumers use coupons. According to the author, coupons are not detrimental to the consumer; in fact, they can fulfil a very useful purpose in constructing a cost effective
communications/promotions mix and can offer substantial savings to coupon users. Coupon use does not have to result in increased retail prices; in fact, coupons may even keep prices lower than they otherwise would be if more expensive forms of promotion replaced coupons. Finally, the author states that consumers do have a choice and can effectively communicate to manufacturers their like or dislike for couponing as a promotional technique.

On the other hand, an empirical study conducted by Cheong (1993) questions the effectiveness of cents-off coupons. Firstly, it is stated, that there is little novelty in coupons, since every store is distributing them. Secondly, it is argued that coupons are available for shoppers almost every week. Thirdly, it is informed that every major brand is issuing coupons. In other words, according to the author, coupon users may be motivated increasingly by the economic incentive and decreasingly by the psychological effect of coupon use. In addition, if the face values are not sufficiently large, coupons may have little or no effect in influencing shoppers' purchases. The study investigates these possibilities, utilizing three different cents-off coupon usagerelated variables (mere use, frequency, and the face value of a cents-off coupon) and five key market response variables (price perception, consumer surplus, repeat purchase rates of the brand on coupon, total amount spent for shopping, and number of items bought). A sample of 108 shoppers at the parking lots of local supermarkets is utilized for the study. Various shopping information are obtained directly from the shopper's receipts and additional data are collected by asking the shoppers several questions regarding a product randomly picked up from the shopping bag. The hypotheses are tested through OLS regression and Logit. The results of the study suggest that economic incentive (face value) is the most influential in explaining price
perception of the brand on coupon, rather than a mere use or frequency of coupon use and that coupon purchases influence price perception of the brand more than any other market response variables investigated. A large face value is required to influence frequent users than new or infrequent coupon users. The author concludes that current cents-off coupons aimed at supermarket redemption are not effective in influencing most of the key market response variables investigated. In particular, current supermarket coupons are found to increase the number of items bought without increasing the total amount spent, hurt price perception of the brand on coupon, and decrease repeat purchases for the brand on coupon. Furthermore, the increased number of items is more likely due to coupon use by households with large families and the utilization of savings from coupon use rather than from acceleration of purchases or voluntary stockpiling the items on coupon.

Bawa and Shoemaker (1987) examine the effects of a manufacturer coupon on brand choice behavior. The level of coupon redemption and changes in brand choice behavior after redemption are examined as a function of the household's prior probability of purchasing the promoted brand, likelihood of buying a favorite competitive brand, and coupon face value. A model of the coupon redemption decision is developed to predict response to the coupon promotion by different consumer segments. Predictions from the model are tested with data collected in a field experiment, for which, a scanner panel of 5192 households is used. The results indicate that coupons do produce a short-term increase in the brand's purchase share that is due mostly to redemption purchases. There also appears to be a significant increase in purchase probability among the few nonusers of who redeem the coupon. The findings relating to coupon redemption indicate redemption rates are lowest for
households that do not purchase the promoted brand prior to the coupon promotion and that are consistent buyers of their favorite competitive brand. Redemption rates are found to be much higher among households that have purchased the brand on a regular basis in the past. The results also suggest that most consumers revert to their pre-coupon choice behavior immediately after their redemption purchase. Finally, redemption rates are found to increase with coupon face value.

Bagozzi et. al. (1992) conduct a field study in the context of consumers' selfreported usage of coupons for grocery shopping in order to investigate how the individual difference variable of state versus action orientation moderates the pattern of relationships among constructs in the theory of reasoned action. State orientation refers to a low capacity for the enactment of action-related mental structures, whereas action orientation refers to a high capacity for this type of enactment. Female staff members at a major university served as subjects for the study. Two questionnaires, separated by one week, are sent to potential participants. The first questionnaire contains the measures of past coupon usage, attitude toward using coupons, subjective norms, and intentions, as well as state- versus action-orientation scale. The second questionnaire assesses people's self-reported coupon usage during the past week. The results of the research confirms the importance of past-coupon usage behavior in subsequent decisions to use coupons for grocery shopping. Prior behavior is a significant determinant of the decision to use coupons again. Although a person's history of using coupons is the major determinant of intentions, it should not be concluded that people use coupons solely out of habit or even mindlessly. The findings reveal that the effects of past behavior are primarily on intentions, but not directly on future behavior. On the other hand, intentions significantly influenced
subsequent behavior and it seems more likely that people's prior experiences with coupons serve as one informational input to the decision to use coupons.

Finally, the results of Neslin's market response model for coupon promotions (1990) are also very significant. In this study, Neslin develops an econometric market response model for measuring the effect of coupon promotions on market share. The model for a given brand includes two important structural relationships. The first relates coupon redemption to market share; the second relates coupon distribution to coupon redemption. In addition to the brand's own couponing efforts, the model takes into account retailer promotions for the brand as well as competitive couponing activity. The data for this research are derived from three sources: scanner panel data, feature data, and coupon distribution data obtained by scanning local newspapers. Data are available for the instant coffee category, for a 58 -week period beginning in January 1982. The scanner panel data provides the basis for calculating weekly market share and weekly redemption totals. There are 1930 households in the panel, making 14,060 purchases over the period of interest. Seven brands included in the analysis accounted for $82 \%$ of all purchases and $93 \%$ of coupon redemptions. The results indicate that loyal users are disproportionately attracted by the coupon. While coupons do generate incremental sales, not all redemptions are incremental. Coupons have a pronounced effect upon market share, although the effect varies from brand to brand and may not be strong enough for some brands for couponing to be profitable in the short-term.

### 2.3. PRICE PROMOTIONS

While literature on coupon promotions is diversified, there is also variation with regard to conclusions drawn from studies on price promotions. Ehrenberg, Hammond, and Goodhardt (1994) study the after-effects of price-related consumer promotions using simple methods consistently across many different brands and product categories in different countries. The focus is on large short-term sales peaks which are almost certainly due to price-cuts. The authors assess whether the extra buying during sales peaks produces after effects by comparing sales from before to after the peaks and by evaluating repeat buying rates from before to after, as well as overall impact of promotions on repeat buying loyalty more generally. In addition, the authors also assess how far the extra buyers during a sales peak are past customers of the promotes brand, i.e., are already familiar with it at the time of promotion. The study covers 25 packaged grocery products across four countries- United States, United Kingdom, Germany, and Japan. The data are household-level consumer panel purchase records from different sources and covers at least one year in the 1980; or in some cases two to three years. Sample sizes are large, from 1,000 to 5,000 continuously reporting households. For each product category, the three to six leading brands are analyzed. The results regarding before-to-after sales comparisons show that the sales differences are mostly small and both positive and negative. The overall average is 1 percent across all 25 product categories, i.e., near-zero. The authors interpret this as effectively a nil effect: there is little if any general after-effect on sales. The results for before-to-after repeat buying is similar: The average before-to-after repeat buying level and the general repeat buying level are extremely close with the predicted levels- as if the promotion had not occurred. The results also indicate that
buying a brand during a promoted period appears to reflect a deliberate form of selective consumer reaction: when a brand is available at a reduced price (or with a coupon), some consumers respond if the bargain is for a familiar brand, i.e., one already in their usage portfolio, but very rarely, if ever, if it is for a previously untried brand. Price-related promotions might only be rewarding the brand's existing customers, although not to any noticeable medium or longer term effect. Large pricerelated consumer promotions for leading brands of established packaged goods products appear to have no after-effect on the brand's sales or repeat-buying loyalty. Three main conclusions are drawn concerning consumer behavior: (1) Most consumers have a portfolio of two or three or so brands which they habitually buy over time ( one perhaps more often than others), hence they can readily switch to a different but familiar brand when it is on offer; (2) Buying a habitual once again does not normally increase the likelihood of buying that brand in the future; (3) Occasionally consumers do try something new, because of variety-seeking or competitive activity, or both. The authors also conclude that shoppers usually seem to pay little attention to unfamiliar brands or products, or probably to advertisements for them. Finally, the authors suggest that there should be shift away from high and increasing spending on price promotions- which have no brand-building effecttoward increased spending on advertising or other long-term parts of the marketing mix including product development, quality, and profitability.

In the context of three laboratory experiments ranging from a computer simulation of purchases to actual product use by subjects, Kahn and Louie (1990) investigate how in-store price promotions affect market share after the promotions have been retracted. The first experiment is designed as an interactive computer experiment in
which subjects make choices among hypothetical brands of shampoos described by attributes. The experiment has three parts: general instructions, product choices, and personal questions about price promotions and shampoo use. One hundred twentynine students enrolled in an introductory MBA marketing course at UCLA complete the experiment as part of a course requirement. The results regarding the effects of promotion when only one brand is promoted show that the switching consumers are more likely than the brand loyal consumers to switch to a promoted brand. Subjects in the switching condition choose the promoted brand more often, in comparison with their pre-promotion levels, when the promotions are patterned regularly than when they are patterned irregularly and the reverse is true for the loyal subjects. In the context of the first experiment, it is shown that the effects of promotions on subsequent choice behavior are influenced both by the pre-existing purchase patterns for the product category and the level of promotional activity in that category. The second experiment is similar to the first one, but this time subjects are asked to choose among real brands. Fifty-four undergraduate students from the Wharton School of Business take part in the experiment. The results of the first experiment are replicated in the second experiment in which real brands are used. Forty-nine undergraduate female students from UCLA participate in the third experiment. Like the previous experiments, half the subjects are given the manipulation to induce switching and half are given the manipulation to induce serial loyalty. The subjects are given a sum of money and are told that they would have to purchase one-use sizes of shampoo for the next 11 shampooing occasions. After each subject makes 11 choices, she is asked a series of questions about her general shampoo usage, her attitude toward promotions, and her reasons for choosing shampoos the way she does in the experiment. The results of the first experiment are once again replicated, but this time
in a more realistic experimental setting. The overall conclusions are as follows: the long-term effects of promotions on brand share for subjects who previously has used the brand depends on (1) the switching patterns of subjects, (2) the patterning of the promotions, and (3) whether one or more than one brand is promoted at a time. In particular, for last-purchase-loyal subjects, a promoted brand's share decreases after the promotions are retracted when it is the only brand being promoted. In addition, promotions that are timed to coincide with the natural choice pattern of the loyal subjects are used more and are more likely to decrease post-promotion brand share. In contrast, the promoted brand's share does not decline on post promotion choice occasions when subjects tend to switch among brands or when all national brands are promoted equally.

Davis, Inman, and McAlister (1992) question the results of early research on the effect of promotion which suggest that a brand using that element of the marketing mix would be evaluated lower and therefore have a reduced repurchase probability. The authors attempt to show in their study that it is possible to observe a decrease in aggregate repurchase probability due to promotion even if individual-level repurchase probabilities are unchanged. The negative effect of promotion hypothesis is tested in a campus grocery store in the center of the undergraduate residential complex at a midwestern university. The store carries a wide variety of products and provides a realistic setting for the test. After initial measurement of brand evaluations, experimental manipulation of the promotional environment begins. In each of the four test categories (canned pasta, pain relievers, toothpaste, toothbrushes) three brands are selected to receive promotional support- promotions rotate randomly among the three brands in each test category so that only one brand is on promotion in any given
week and all brands are promoted with roughly equal frequency. The brand on promotion in a given week has its price reduced and a shelf sign is attached to its display. The depth of the price cuts is alternated between $15 \%$ and $1 \%$. After three months of promotion manipulation in the store, students' evaluation of the brands are re-measured. The differences between students' original evaluations and their postpromotion evaluations provide the measures of promotion's effect. The results of the experiment indicate that promotions do alter consumers' purchase probabilities. When promoted, a brand, on average, gains 15 share points. On average, a $71 \%$ sales increase is associated with a $15 \%$ price cut, and a $27 \%$ sales increase is associated with a $1 \%$ price cut. The results designate that evaluations do not decrease for the promoted brands and that the failure to decrease is not due to other unconsidered factors or to the method. The authors conclude that there is no negative effect of promotion on brand evaluation and hence no negative effect on repurchase probabilities. Finally, the authors state that promotions cannot be expected to change the attitudes or behavior of consumers who are already strongly loyal or strongly negative. Only for consumers who are essentially indifferent among several brands can promotion increase the short-term attractiveness of the brand and thereby drive choice. In an earlier study by Inman, McAlister, and Hoyer (1990), it is evidenced that some consumers react to promotion signals without considering relative price information. In this study, the presence of a promotion is observed to make the selection of the promoted brand more likely.

Bemmaor and Mouchoux (1991), investigate the expected magnitude of deal price elasticities, the relationship between brand price spread and deal price elasticity, and the interaction effect between price reduction and retail advertising in a factorial
experiment with 12 national brands in six non-perishable consumer goods categories, namely, sparkling wine, regular ground coffee, liquid cleanser, disposable diapers, hair lacquer, and cat litter. Unit sales data are collected on a weekly basis from the ordering books of three stores located in a suburban area of Paris. The effects of two levels of price reduction - $5 \%$ and $15 \%$ - on brand unit sales and the interaction effect with retail advertising are assessed in the experiment. In one treatment, the price cuts are announced with a leaflet sent to the neighboring customers by the retailer. In all the treatments, the promoted brand is paced on an end-of-aisle display with a sign announcing the promotion. The results of the experiment indicate that short-term deal elasticities are "large" when deals are unadvertised. The leading national brands tend to be less responsive to price deals than the other national brands. Finally, a strong positive interaction between price reduction and advertising is evidenced, and this interaction effect is smaller for the leading brands.

Gupta and Cooper (1992) also examine consumers' response to retailers' price promotions. The study shows that changes in purchase intention depends on the discount level, store image, and whether the product advertised is a name brand or a store brand. The study also investigates the existence of promotion thresholds and shows that the threshold point differs for name brands and store brands- for a name brand it is lower than that for a store brand. In other words, stores can attract consumers by offering a small discount on name brands while a larger discount is needed for a similar effect for a store brand. The study also indicates the existence of a promotion saturation point above which the effect of discount on changes in consumers' purchase intentions is minimal. Thus, it may not be useful to offer discounts below the threshold or above the saturation level.

In a recent study conducted by Mulhern and Padgett (1995), the authors match actual purchases of individual shoppers with an in-store survey to determine the relationship between regular price and promotion purchasing. The in-store survey is conducted in two store locations of a chain that sells home improvement products. The survey results are matched with customers' actual purchases to determine how regular price and promotion purchasing relate to why shoppers visit the store. Data are collected during a three week period in the summer of 1992. During this time, the stores sequentially conduct two 11-day price promotions. Promoted items are advertised in color, free standing inserts in the major newspaper of each city. The advertisements appear twice during each 11-day period and feature approximately 200 items with discounts ranging from 5 to $33 \%$ and the promotions are identical in the two stores. Store clerks ask shoppers to complete the survey at the checkout area while their purchases are scanned and a total of 412 surveys are used for analysis. The results indicate that there is a positive correlation between regular price and promotion purchasing at the individual level. Over three fourths of the shoppers, identifying the promotion as a reason for visiting the store, purchase one or more regular price items. On average, these shoppers spend more money on regular price merchandise than on promotion merchandise.

### 2.4. COUPON PRONENESS, DEAL PRONENESS AND VALUE CONSCIOUSNESS

Individuals who respond to coupon offers have been referred to as "coupon prone" consumers or, more generally, "deal prone" consumers. Deal prone consumers tend to perceive a deal as an end in itself as well as a means to an end. Therefore, deal
proneness is defined as an increased propensity to respond to a purchase offer because the form of the purchase offer positively affects purchase evaluations. Similarly, coupon proneness can be defined as an increased propensity to respond to a purchase offer because the coupon form of the purchase offer positively affects purchase evaluations (Lichtenstein et. al., 1990). Prior research suggests that deal proneness can be defined in terms of a general proneness to respond to promotions predominantly because they are in deal form. Thaler (1983) suggests that deal prone individuals are likely to be those who purchase something because it is a deal, only to have it lie around the house and never be used. On the other hand, assuming that for most people price and quality are the most salient "give and get" components, Lichtenstein et. al. define value consciousness as a concern for paying low prices, subject to some quality concern.

Bawa and Shoemaker (1987) conduct a research with the purpose of providing a direct test of whether the coupon-prone buyers in one product class are also the coupon-prone buyers for other product classes. The authors develop a measure to quantify each household's consistency in coupon proneness across several product classes. The data used to test the hypotheses consist of more than 300,000 purchase records obtained from a national consumer panel operated by NPD Research. The panel has 2879 households that has returned all diaries over a one-year period and for whom complete demographic data are available. The data analyzed cover seven product classes: ready-to-eat cereal, facial tissue, shampoo, paper towels, cooking oil or shortening, hairspray, and deodorants or antiperspirants. The period analyzed is the 12 months of 1975 . Two groups of households from the panel are examined. One group consists of all 462 households that make at least five purchases a year in each
product class and the second group consist of all 1389 households that make two purchases in each product class. The analysis for both groups lead to very similar results. The results indicate that the degree of coupon usage is not independent across product classes. Households that are relatively coupon-prone tend to be somewhat younger, larger, higher income, more educated, and more likely to live in an urban area than non-coupon-prone households. In addition, these households are less likely to have a working wife and young children present. In terms of purchase behavior, coupon-prone households tend to be less brand loyal and less store loyal than the non-coupon-prone households. The findings on brand loyalty and store loyalty indicate the presence of two distinctly different types of consumers: activist shoppers, who are less brand loyal, less store loyal and relatively store loyal, and relatively coupon-prone, and routinized shoppers, who tend to be more brand loyal and store loyal and light users of coupons. Activist shoppers tend to be better educated, located in urban areas, and higher income.

Lichtenstein et. al. (1990) argue that, apart from coupon proneness, at least one other psychological construct, value consciousness, underlies the behavior of redeeming coupons. The authors contend that coupon redemption behavior is a function of value consciousness as well as coupon proneness and employ acquisition-transaction utility theory as a paradigm for investigating the relationship between coupon proneness and value consciousness. To test the hypotheses in the study, the authors develop measures of coupon proneness ( CP ) and value consciousness (VC) and use pre-test procedures to generate and purify items. A convenience sample of 350 non-student adults from a medium-size SMSA is employed to test the hypothesized relationships. The results show that CP is a significant predictor of coupon redemption behavior and
that VC explains a significant amount of variation in coupon redemption behavior after the variation explained by CP is accounted for. This provides consistent support for the hypothesis that coupon redemption behavior is a manifestation of VC , as well as CP . The results also indicate that CP is more negatively correlated with brand loyalty than VC.

### 2.5. BRAND SWITCHING, PURCHASE ACCELERATION, STOCKPILING

Sales promotions are used to attract new triers, to reward loyal customers, and to increase the repurchase rates of occasional users. Kotler divides new triers into three groups: users of another brand in the same category, users in other categories, and frequent brand switchers. Sales promotions often attract the brand switchers, because users of other brands and categories do not always notice or act on a promotion. Brand switchers are primarily looking for low price, good value, or premiums and therefore are more likely to act on a sales promotion. Considerable research has been carried out concerning brand switching, purchase acceleration and stockpiling in an effort to explain the impact of sales promotions.

In a prominent research, Gupta (1988) tries to answer the question regarding sales increases resulting from sales promotions: "Is the increase in sales due to consumers switching from other brands or is the brand borrowing sales from the future as consumers advance their purchase in time or stockpile the product?". Gupta examines the effectiveness of a sales promotion by decomposing the sales "bump" during the promotion period into sales increase due to brand switching, purchase time
acceleration, and stockpiling. The author proposes a method for such a decomposition whereby brand sales are considered the result of consumer decisions about when, what, and how much to buy. Gupta uses three different models- inter-purchase time model, a multinomial logit model of brand choice, and a cumulative logit model of purchase quantity- in order to capture the impact of marketing variables on the consumer decisions of when, what, and how much to buy. IRI (Information Resources, Inc.) scanner panel data for coffee are used for calibrating and validating the models. The data set covers a panel of approximately 2000 households for a twoyear period (1980-1982) and contains records of the complete purchase history of each household in the panel. The analysis is restricted to the data for ground caffeinated coffee in the Pittsfield, MA market. A random sample of 100 households is selected from 395 eligible households. The results of The Brand Choice Model show that market variables such as price and promotion and consumer characteristics such as brand and size loyalty help substantially in explaining consumers' brand choice decisions. The model suggests as well that promotional variables also have a strong role in consumers' brand choice decisions. Regular price seems to have only a marginal role in brand choice decisions. The Inter-purchase Time Model stipulates that average inter-purchase time of a household is the most important variable in explaining when that household buys coffee. Moreover, feature and display are likely to accelerate consumers' purchases in time. The parameter estimate of household inventory is also significant, that is, a household is likely to wait longer if its previous product inventory is large. The results of The Purchase Quantity Model suggests that a household's average purchase quantity is the most important variable in explaining the quantity of coffee a household buys on any purchase occasion. Variables such as regular price of coffee, price cut, feature and display, and family size do have some
impact on consumers' purchase quantity decisions. Finally, the results of elasticity analysis for all brands and all three promotional instruments ( feature and display, feature or display, and promotional price cut ) reveal some important conclusions: of the total sales increase due to promotion, more than $84 \%$ is accounted for brand switching, $14 \%$ or less by purchase time acceleration, and less than $2 \%$ by stockpiling.

Blattberg and Neslin (1989) also state that the potential sources of volume increase generated by sales promotion include switching, purchase acceleration of both quantity and timing, and increased category consumption. Putting together the facts that sales promotions generate dramatic immediate sales increases and that brand switching accounts for a large percentage of this increase, the authors conclude that sales promotions are strongly associated with brand switching. Blattberg and Neslin argue that this can mean that sales promotions induce brand switching or that brand switchers buy the brand being promoted- the question of causality not been sorted out.

Grover and Srinivasan (1992) investigate the multiple effects of retail promotions on brand loyal and brand switching segments of consumers. In the study, segments are determined by an iterative Bayesian procedure. The variations in within-segment brand shares within a store are related to promotional variables by a logit model estimated by non-linear least squares. Store share is modelled as a function of store $\because$ attractiveness, a summary measure of the store's promotional activity on the multiple brands. Finally, category volume is related to overall product category attractiveness in a model that includes both current and lagged effects. Just like Gupta's study outlined above, this research is also restricted to ground caffeinated coffee market.

The IRI scanner panel data utilized in the study consists of about 1000 households in the Pittsfield, MA market and covers about two years beginning from April 1980. Out of the 1000 households in the data set, 450 households are chosen as the sample in the analysis. The empirical results of the segmented approach provides important insights into the differential promotional effects on brand loyal and brand switching segments. Results include: (1) the market can be characterized by brand loyal segments, each of which buys mostly their favorite brand, and switching segments, each of which switches mainly among different brands of the same type, (2) different loyal segments respond to different promotional variables (3) there are marked asymmetries in that one brand is able to gain a substantial amount from a competitor's loyal segment, but the converse does not occur, (4) promotional variables have significant effects on within-segment market shares, the effects being different across segments, and (5) there are significant differences in lagged effects; they last longer for brand loyal segments, suggesting that purchase acceleration and stockpiling last longer for brand loyal segments than for switching segments.

Kumar and Leone (1988) use store-level scanner data in order to explore the effect of retail store price promotion, featuring, and displays on sales of brands of disposable diapers within a medium-sized south-western city. The authors employ a hierarchical, cross-sectional, and time-series modelling procedure to identify the competitive structure among retail stores within a test market city. Models are also developed for pooled store pairs to investigate the effect of promotion on store substitution. Sixty weeks of store-level scanner data are supplied on 10 stores' sales volumes and promotional activities for the children's disposable diaper market and the three major brands in this market have a combined market share of almost $95 \%$ in the city. The
results on brand substitution indicate that a store's price, featuring, and display of a specific brand affect that brand's sales. Price promotion clearly has the largest impact on sales, followed by featuring and display. The results on store-substitution is somewhat less consistent. Though store substitution can result from promotional activities, the effect is smaller than that for within-store brand substitution. The outcome of the study shows that the price promotion, featuring, and display activities selected by a particular store in the test market city for a specific brand can lead to increased sales for that brand, within the store. The researches argue that this increase can be attributed to two factors. First, some of the increase is due to brand substitution within the store, resulting primarily from price promotion and to a lesser degree from featuring and display activities. Second, some of the increase is attributable to individual's substituting stores to make their purchases, particularly as a result of price promotion and featuring.

In a research conducted by Walters (1991), the impact of retail price promotions on consumer purchasing patterns and the performance of competing retailers are assessed. A conceptual framework for retail promotional effects that includes brand substitution effects, inter-store sales displacements, and the effects of promotions on complementary goods is developed. The framework is tested with store-level scanner data and company records covering a period of 26 weeks collected for four product categories. The product categories examined are boxed cake mix, ready-to-serve frosting, boxed spaghetti, and ready-to-serve spaghetti sauce. There are several notable results with important implications: (1) Impact of promotion on promoted brand sales: price promotions on a brand have a significant impact on brand sales for all promoted brands in the four categories and they stimulate brand sales; (2) Brand
substitution effects: (i) brands in the four categories gain sales at the expense of sales of at least one competing brand in the category as a result of price promotions, (ii) the number of substitution effects vary among product categories and among brands within a product category, that is, certain brands appear to be more vulnerable than others to losses in sales due to the price promotional activities of their competitors, (iii) most of the substitution effects are asymmetrical, as one brand build sales at the expense of another brand but do not lose sales as result of that brand's price promotional activities, (iv) price promotions appear to be effective in enhancing substitution of high market share brands for low market share brands; (3) Intra-store complementary effects: (i) price promotions on a brand have a significant positive impact on sales of products complementary to the promoted brand, (ii) complementary effects vary among product categories and among brands within a product category, (iii) complementary effects are asymmetrical, (iv) Price promotions on low share brands significantly increase sales of high share complements as frequently as price promotions on high share brands stimulate complementary sales of low share brands ; (4) Inter-store promotional effects: (i) price promotions on a brand in one store has a significant negative impact on at least one different but substitutable brand in another store for a large number of the brands (ii) consumers are more likely to switch stores when certain brands and product categories are price promoted than when other brands and product categories are promoted.

Dodson et. al. (1978) study the impact of deals and deal retraction on brand switching. The research centers on determining the impact of a variety of consumer deal types on repeat purchase and the external validities of economic utility theory and self-perception theory in predicting the effect of deal retraction on subsequent loyalty
to a previously dealt brand. The data base for the study consist of a sub-sample of households that participated in the Chicago Tribune Consumer Panel between 1963 and 1970. A set of nine products from two product categories -margarine and allpurpose flour- are selected for this study which is carried out with the participation of 459 families. Three major findings emerge from the investigation. First, it is found that offering a deal enhances brand switching. Media-distributed coupons are particularly effective in obtaining brand trial and thus induce brand switching. Cents-off package deals also promote brand switching, although to a lesser extent than media-distributed coupons. In contrast, package coupons enhance or maintain the likelihood of a repeat purchase. Second, the retraction of a deal has a significant effect on the incidence of brand repeat purchasing. Retraction of media-distributed coupons undermine repeat purchasing among persons who switch to take advantage of the deal as well as those who purchase the brand before the deal. Similarly, retraction of a cents-off deal undermine the repeat purchasing of individuals who are involved in both switching and loyalty transactions. Retraction of package coupons serve to maintain the loyalty of persons who purchase the brand before coupon redemption. Third, the mediadistributed coupons undermine repeat purchasing to a greater extent than either centsoff deals or package coupons, whereas cents-off deals undermine repeat purchasing to a greater extent than package coupons. On the other hand, a study conducted by Neslin and Shoemaker in 1989 attempts to bring an alternative explanation for lower repeat rates after a promotion purchase. The explanation is that the promotion temporarily attracts a disproportionate number of households with low purchase probabilities. The authors argue that lower aggregate repeat rates can result even if individual purchase probabilities are the same before and after a promotion purchase. According to the authors, when the repeat rates of these households are averaged
with repeat rates of those that would have bought the brand even without a promotion, the average rate after a promotion purchase is lower.

One potential consequence of consumer promotions is the acceleration of consumer category purchases. Purchase acceleration is the potential of sales promotions to induce larger purchase quantities and to alter purchase timing. Hence, purchase acceleration can assume two forms: purchasing of a larger quantity or shortening of inter-purchase time. That is, in response to a promotion, consumers may buy more quantity of the product category, or buy at an earlier time. Purchase acceleration has also been referred to as "consumer stockpiling" or "mortgaged sales". The research of Neslin, Henderson, and Quelch (1985) presents an analytical framework for measuring purchase acceleration, and applies that framework to two product classes: bathroom tissue and instant coffee. The effects of coupons, manufacturer and retailer advertising, and price cuts are examined. Data are derived from a static sample of 2293 consumers who took part in a scanner panel over a 28 -week period. The panel is set up in a single metropolitan market with the co-operation of the three major area supermarket chains. The major empirical findings of this research is as follows: (1) Purchase acceleration is more likely to be exhibited in increased purchase quantity than in shortened inter-purchase times. Coupons, local retailer advertising, price cuts and advertised price cuts can all increase quantity, but only advertised price cuts accelerate timing. (2) The most effective tool for accelerating purchases appears to be advertised price cuts, for these promotions are both associated with increased quantity and decreased timing. Coupons by themselves generally accelerate quantity more effectively than local advertising. (3) The most common way for consumers to alter their subsequent purchase behavior after accelerating is simply to wait longer until
purchasing again. They may also buy a little less the next time they purchase the category. (4) Loyal purchases are not necessarily more accelerated than non-loyal purchases, although this depends on the category. (5) Purchase acceleration of quantity is stronger among heavy users than light users.

Helsen and Schmittlein (1992) also investigate purchase acceleration phenomena in their research. The authors explore the impact on purchase acceleration of the deal frequency, the mean magnitude of the deal incentive, and the variability around the regular price and the promotional price cut, respectively. The empirical study uses UPC scanner data across distinct product categories in order to evaluate the validity of the propositions. The databases comprise five different product categories, notably, catsup, tuna, margarine, toilet tissue, and peanut butter. The households in the database come from two distinct areas with about 2,000 households each. The twoyear time span covers 1985-86. The results demonstrate that in most cases promotional price cuts lead to purchase acceleration. An increase in the promotional price cut in a certain week in a particular store for a given product class is expected to augment the conditional likelihood of a household buying that brand in that week. According to the results, higher deal frequencies tend to correspond to increased price cut sensitivities. Regarding the mean percentage price cut, the results show that larger magnitudes for the mean depth-of-discount correspond to increased purchase acceleration. Also, increased variability in the regular price relates to increased forward buying.

Whereas the studies surveyed above show support for the acceleration impact of deals, some researchers have failed to uncover incidences of forward buying patterns
in their promotion tracking studies. For example, Moriarty (1985) identifies only minor substitution and sales displacement effects for the low priced food category he studies. The results suggest a general absence of strong substitution effects and a lack of stockpiling effects.

Assuncao and Meyer (1993) explore the rational effect of price promotions on sales and consumption in markets where consumers are uncertain about the future price of goods. The researchers first derive an optimal ordering policy which expresses the amount a consumer should purchase and consume in a given period as a function of the observed price of the good, the distribution of future prices, and the nature of his or her inventory and then use a normative model of inventory control to explore how changes in the long-run frequency and temporal correlations of price promotions should normally affect the contemporaneous relationship between purchase, consumption, and price. It is assumed that the consumer makes the purchase quantity and consumption decision by maximizing the utility derived from consuming the good over a stream of occasions. The consumer's purchase decision on any given occasion is thus presumed to be driven by the following seven factors: the currently observed price of the good, the current inventory, the consumer's beliefs about the prices which are likely to rise in the future, the amount of utility derived from consuming the good, the amount of disutility associated with expenditures, the amount of disutility associated with storing the good, and the discounting of future utilities when evaluating the utility of an immediate transaction. The analysis yields a number of new insights into the normative effects of price promotions. Most notable of these is that stockpiling in response to price promotions rationally leads to increased rates of consumption in a category. Unlike Moriarty, the authors recognize the existence of
stockpiling effects of promotional deals. In addition, it is also shown in the model that both consumption and sales-price sensitivity are negatively related to the temporal correlation between price promotions, or the degree to which a promotion in one period foretells another promotion in the next.

Blattberg, Eppen, and Lieberman (1981) also conclude that consumers do stockpile on deal. The authors observe that in eight of nine cases studied in their research, the quantity bought on deal is higher than for non-deal purchases. The model and the empirical results suggest that consumer stockpiling is an important reaction to dealing for established, storable products.

### 2.6. CONSUMER CHARACTERISTICS

Finally, another focal point of researchers has been the relationship between certain demographic / psychographic consumer characteristics and the tendency of consumers to act on sales promotions. Numerous studies have been devoted to the interaction between consumer characteristics and consumer response to various promotional tools to be able to anticipate the probable reactions of certain consumer groups to different types of sales promotions and to assess the possibility of designing tailormade sales promotions campaigns for different target groups.

A case study conducted by Cotton and Babb (1978) in the Dairy Products Industry investigates how consumer response to promotional deals varies according to product, household, and type of deal. The study has three specific objectives: to determine the extent to which consumption of various dairy products is influenced by deals, to
analyze the response to deals of households with various demographic characteristics, and to determine the relative response for different types of promotional deals. Instore specials, coupons, multiple-item discounts, and free gifts are the types of promotional deals analyzed in the study. Consumer panel data are used to analyze household purchases over time, during periods when purchases are made on a promotional deal and when they are not. The data for the nine dairy product classifications used in the study are made available for the research by The United Dairy Industry Association for the period April 1972 through January 1974. Two samples are picked from the 6,000 available households for each product. The first sample contains all the households that purchased the product at least once on a promotional deal and the second sample contains households that regularly purchased the product. Using this framework, individual household purchases reported in the panel diaries are tracked through three different time periods called Period I, II, and III which are in turn before, during, and after the date of purchase on promotion. These purchases are summed for each period to establish a profile of the total sample response to promotional deals. The results of the study regarding consumer characteristics show that small households of 1 or 2 persons have over 100 percent increases in purchases during Period II with negative change in Period III, while households with 3 or 4 family members have a 35 percent increase in Period II and an 18 percent increase in Period III. Households with 5 or more members have only a 3 percent increase in both periods. Moreover, the results indicate that non-whites respond more to deals than whites, as do households with workwives compared to those with wives not employed outside the home.

In his empirical research, Montgomery (1971) investigates consumer characteristics associated with dealing. The data base for the study consists of dentifrice purchase records and housewife responses to a social-psychological questionnaire from a subsample of MRCA panel households. A total of 992 households satisfying all criteria are included in the analysis. In the study, the questionnaire data are obtained in April 1960. The dentifrice purchase records are divided into two groups: purchase records before and after the August 1,1960 endorsement of the toothpaste brand in the study by the American Dental Association. The measures used in the analysis are dealing activity, brand loyalty, children, interest, opinion leadership, venturesomeness, gregariousness, and media exposure. The relation between certain consumer socialpsychological and purchasing characteristics and dealing activity are examined in two contrasting situations in the dentifrice market. In the period before the endorsement of the toothpaste by the American Dental Association, venturesomeness, media exposure, and gregariousness are found to be directly related to dealing activity. Opinion leadership, interest, and the presence of children do not seem to relate to dealing activity. In the period after the endorsement, the directions of effects of venturesomeness, media exposure, and gregariousness are found to be all the same as in the earlier period, but the magnitude of all these effects is generally diminished.

In a 1978 study, Blattberg et. al. also try to identify the household characteristics that affect deal-proneness. They study household resource variables such as car and house ownership, time-related variables such as the wife's employment status and age of the youngest child, and income. The data is gathered from Chicago Tribune Panel purchase data between 1958 and 1966. Five product categories are included in the analysis: aluminium foil, waxed paper, headache remedies, liquid detergent, and facial
tissue. The results indicate that owning a car and a house makes a household more deal-prone and that high income households are more deal-prone. However, when income is adjusted for house and car ownership, it is found that higher income is not associated with deal-proneness. Finally, households with a working wife and a child aged below 6 are found to be less deal-prone.

Levedahl (1988) uses panel data on household purchases of paper towels in order to evaluate two alternative hypotheses regarding the associations between coupon redemption, income, and education. Levedahl states that previous studies report coupon redeemers have both greater income and more education than nonredeemers. According to Levedahl, one explanation for the positive relationship between income/education and the number of coupons redeemed is the efficiency hypothesis which holds that: households with larger incomes and/or more education are more efficient shoppers. They are better able to locate, sort, organize, and cash in coupons and to take advantage of the discount that a coupon offers. On the other hand, preference/opportunities hypothesis brings an alternative explanation: households with larger income and / or more education are more likely to purchase brands that offer coupons, and, therefore, they will be likely to redeem more coupons. In the research, a test is made of whether the positive association between income/education and the number of coupons redeemed is explained by the efficiency hypothesis or by the preference/opportunities hypothesis. The model of coupon redemption developed in the study refers to the redemption of cents-off coupons offered by grocery items and the available brands within a given product category are divided into two groups: brands that offer coupons (name brands) and brands that do not offer coupons (generic brands). Observations on the redemption of paper towel
coupons for a set of totally loyal and non-loyal households are used to evaluate the efficiency and preference/opportunities hypotheses. Data on the purchase of paper towels are obtained from the files of NPD Research for the 1979 calendar year. Only husband-wife households residing in the metropolitan New York, Chicago, or Los Angeles marketing areas are included in the sample which consists of 299 households and of which 38 percent are totally loyal households. The variables analyzed in the study are loyalty status, region, household income, education of female head, employment status of female head, age of female head, age of children, and quantity purchased. The results for income / education replicate the usual findings: the greater the household's income/ education, the more coupons it is likely to redeem. However, increases in income increase redemption at a decreasing rate and above the educational level of the benchmark household, increases in education do not appear to increase the likelihood of coupon redemption. The results also indicate that after age 55 the probability that coupons are redeemed increases. The positive correlation between education and coupon redemption is consistent with the efficiency hypothesis and supports the notion that coupon redeemers are better shoppers. However, the results for income provide evidence that coupon redeemers are not necessarily better shoppers. The positive correlation between income and coupon redemption appears to result from the fact that higher income households are more apt to purchase brands that issue coupons and, therefore, are likely to redeem more coupons; this evidence supports the preference/opportunities hypothesis.

In her field study regarding the new demographics and market fragmentation, Zeithaml (1985) attempts to investigate the relationship between five demographic factors- sex, female working status, age, income, and marital status- and a wide range
of variables associated with preparation for and execution of supermarket shopping. A major premise of the research is that changing demographics will lead to a splintering of the mass market for grocery products and for supermarkets. The study is designed to profile attitudes and behaviors of the new demographic groups with respect to supermarket shopping. A combination of judgement and probability sampling is used to select the respondents for the study. Supermarkets are chosen using judgement samples; within those supermarkets, respondents are selected randomly to obtain representative samples of shoppers frequenting the stores. The selected shoppers are approached and asked to complete the questionnaire. 873 questionnaires are found eligible for inclusion in the sample. The results of the research reveal that compared to females, males report that supermarket shopping is a less important task. Males spend less time on their observed shopping trips, plan less, use supermarket information less, and economize less than females. Males score less on a scale including planning items such as use of shopping lists, budgeting, and newspaper advertising. Males also report lower usage of supermarket shopping information, such as unit pricing. Finally, males reveal a lower emphasis on economy than females by their lower reported shopping for store specials, redemption of coupons, and checking of grocery prices. Males do not seem to respond as well as females to conventional promotion (newspaper advertising, coupons, price promotions). Female working status shows a significant effect on many of the supermarket shopping variables. Women are classified into one of four working status groups: Stay at home, Plan to work, Just a job, and Career. The results indicate that both groups of working women use information less and economize less than the Stay at home and Plan to work females. On average, the Plan to work female visit more supermarkets per week than any other group. She also uses supermarket information and
economize significantly more than the average female in the two working groups. Significant age differences are found in all shopping variables except dollars spent per minute. As age increased, shopping time, number of supermarkets visited weekly, and the number of weekly shopping trips all increased. In general, older shoppers plan more for shopping, tend to use information more, and to economize more than younger shoppers. Conventional promotions seem to influence the senior customer segment more than any other segment. Marital status shows a significant effect on extent of planning, extent of economizing, extent of information usage, and importance of shopping. Married respondents-whether male or female- plan, economize, and use information significantly more than single shoppers. Income, as the last demographic factor examined in the research, affects the time spent shopping, number of supermarkets visited weekly, extent of planning, amount of purchase, and weekly expenditures on groceries. Shoppers with higher income spend more time than those with lower income. High income shoppers do not differ in the amount of economizing or information usage.

In a study examining black consumer motives for coupon usage, Tat and Bejou (1994) aim to identify coupon users among black consumers and compare the motives for using coupons between black and white consumers. The researchers use a structured-nondisguised questionnaire for data collection. A telephone survey using a two-stage sampling plan is conducted in Memphis, Tennessee, in November 1989 and a total of 326 interviews are completed. The analysis of the data shows that black coupon users are more likely to be married and this is especially evident for heavy users. Also, black coupon users have larger households than nonusers. Regarding age, black nonusers are more likely to be young (under 25 years of age). The results
regarding education and income between users and nonusers are mixed. A larger percentage of nonusers have more education and higher income than the light users. However, a much higher percent of heavy users have more education and higher income than the nonusers and light users. Heavy users, both black and white, have more positive attitudes toward couponing than do the light and nonusers. Heavy users also are also more price-conscious than are the light and nonusers. Finally, heavy users agree more that their friends, relatives, and neighbors use coupons than do the light and nonusers.

In a 1987 study, Bawa and Shoemaker try to identify variances in consumer demographics between coupon-prone and non-coupon-prone households. They find out that households that are relatively coupon-prone tend to be somewhat younger, larger, more educated, more likely to live in an urban area, and to have higher income. These households are less likely to have a working wife, and young children. In another study by Teel, Williams, and Bearden (1980), it is found that coupon-prone households tend to be larger than non-coupon-prones. Coupon-prones also seem to have higher income than non-coupon-prone consumers.

Bawa and Shoemaker (1989) also examine the association between certain demographic characteristics and incremental purchasing at the household level for direct mail coupon promotions. The hypotheses in the study are tested with data collected from a field experiment in which a solo coupon for an established brand is mailed to each of 5192 households belonging to a scanner panel. Of the 5192 households, 4887 are purchasers of the product class. After a base period of 24 weeks, a low, medium, or high value coupon is mailed to three groups of panel
households selected on the basis of total consumption and usage of the product class and of total consumption and usage of the established brand used in the study. The results of the research show that the likelihood of a household being incremental is related significantly and positively to wife's education, home ownership, and household size. In the case of this coupon experiment, the average incremental sales per household is much higher for households in the higher income, higher education, larger family, and homeowner segments.

In a research conducted by Mittal (1994), an integrated framework is established for relating diverse consumer characteristics to supermarket coupon redemption. The framework organizes consumer characteristics into individual-difference variables (IDVs). Objective IDVs are composed of four demographics judged to play a theoretical role in the proposed model: income, education, female employment, and household size. Three lifestyle and self perception variables considered as Subjective IDVs are examined in the study: busyness, perceived financial wellness, and pride in homemaking. The data for the research are collected through a self-administered survey of female supermarket shoppers. 184 surveys with complete responses to the questions are utilized in the study. On the basis of the results of the research, a mediational and causal model is created. Several mediational chains of influence are noteworthy: (1) Income $\rightarrow$ financial wellness $\rightarrow$ reduced comparison shopping $\rightarrow$ reduced perception of economic benefits $\rightarrow$ less favorable attitudes $\rightarrow$ reduced coupon redemption; (2) Education $\rightarrow$ busyness $\rightarrow$ reduced comparison shopping $\rightarrow$ lower perceived economic benefits $\rightarrow$ less favorable attitudes $\rightarrow$ lower coupon redemption; (3) Female employment $\rightarrow$ less homemaking pride $\rightarrow$ less comparison
shopping $\rightarrow$ lower perceived economic benefits (or greater perceived time costs) $\rightarrow$ less favorable attitudes $\rightarrow$ lower redemption ; and (4) Household size $\rightarrow$ busyness $\rightarrow$ less comparison shopping $\rightarrow$ lower economic benefits $\rightarrow$ less favorable attitudes $\rightarrow$ lower redemption rates. The researchers argue that demographics are descriptive and identifier characteristics; as such they cannot influence voluntary behavior unless they (or their effects) are first "subjectively experienced" by the consumer. Thus, income is first felt by the consumer as a subjective quality of being financially well off, education and female employment as busyness and as a lower need for taking pride in homemaking, and household size as financial pressure and busyness. These subjective experiences illustrate how other demographics must be "translated" into psychological processes if the goal is to relate demographics to consumer behaviors in an explanatory ( rather than merely predictive ) fashion.

### 2.7. SUMMARY OF REVIEWED LITERATURE

After reviewing the diverse literature on sales promotions for consumer non-durables, the results and key findings of major prior researches are summed up and given in a compact form in Table 2.1 below.

Table 2.1 Summary of Findings of Past Research on Sales Promotions

| Author and <br> Date of Research <br> Rat | Main Focus of <br> Research | Key Results of the Research |
| :--- | :--- | :--- |
| Bemmaor and Mouchoux <br> (1991) | Price Promotions | A strong positive interaction between <br> price reduction and advertising is <br> evidenced. Short-term deal elasticities <br> are large when deals are unadvertised. |
| Davis, Inman, Mc Alister <br> (1992) | Price Promotions | Price promotions don't lower consumer <br> perception of brand quality. There is no <br> negative effect on brand evaluation and <br> hence on repurchase probabilities. |
| Dodson, Tybout, Sternthal <br> (1978) | Price Promotions | Promotional pricing will lower a brand's <br> evaluation |
| Ehrenberg, Hammond, <br> Goodhardt (1994) | Price Promotions | There is little if any general after effect <br> of price promotion on sales. The average <br> before-to-after repeat buying are <br> extremely close as if the promotion had <br> not ocurred. |
| Frank and Massey (1971) | Price Promotions | Regular purchasers stockpile during <br> promotions and then buy less afterwards. |
| Gupta and Cooper (1992) | Price Promotions | Changes in purchase intention depends <br> on the discount level, store image and <br> whether the brand is a name brand or a <br> store brand. There are threshold and <br> saturation points which differ for name <br> brands and store brands. |
| The effect of promotions on subsequent <br> choice behavior are influenced both by <br> the pre-existing purchase patterns for <br> the product category and the level of <br> promotional activity in that category. |  |  |
| Kahn and Louie (1990) | Price Promotions | Consumers' price expectations will be <br> lowered by promotional pricing. |
| Monroe (1973) | Price Promotions | There is a positive correlation between <br> (egular price and promotion purchasing <br> at the individual level. |
| Kalwani, Yim, Rin, and <br> Sugita (1990) | Mulhern and Padgett <br> (1995) | Promotions |

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| Peckham (1973) <br> Brown (1974) | Price Promotions | Price promotions don't alter the long term sales trends for established brands. |
| :---: | :---: | :---: |
| Walters (1991) | Price Promotions | Price promotion on a brand has significant impact on brand sales. Therc are substitution, intrastore, interstore, and complementary effects of price promotions. |
| Kumar and Leone (1988) | Price Promotion, Featuring and Display | A store's price, featuring and display of a specific brand affect that brand's sales. Price promotion clearly has the largest impact on sales followed by featuring and display. |
| Dodson, Tybout, Sternthal (1978) | Brand Switching | Offering a deal enhances brand switching. |
| Grover and Srinivasan (1992) | Brand Switching | Different brand loyal segments respond to different promotional variables Purchase acceleration and stockpiling last longer for brand loyal segments than for switching segments. |
| Gupta (1988) | Brand Switching | Price and promotion, brand and size loyalty help in explaining consumers' brand choice decisions. Total sales increase due to promotion is accounted mainly for brand switching (84\%), to some extent by purchase time acceleration ( $14 \%$ ), and marginally by stockpiling ( $2 \%$ ). |
| Helsen and Schmittlein (1992) | Purchase Acceleration | Promotional price cuts lead to purchase acceleration. |
| Neslin, Henderson and Quelch (1985) | Purchase Acceleration | Purchase acceleration is exhibited in increased purchase quantity than in shortened inter-purchase times. Coupons, local retailer advertising, price cuts and advertised price cuts can all increase quantity but only advertised price cuts accelerate timing. Loyal purchases are not necessarily more accelerated than non-loyal purchases. |
| Moriarty (1985) | Stockpiling, Brand Substitution | The results suggest a general absence of strong substitution effects and a lack of stockpiling effects. |
| Assuncao and Meyer (1993) | Stockpiling | Authors recognize the existence of stockpiling effects of promotional deals. Stockpiling in response to price promotions rationally leads to increased rates of consumption in a category. |
| Blattberg, Eppen, Lieberman (1981) | Stockpiling | Consumers do stockpile and this is an important reaction to dealing for established, storable products. |
| Bawa and Shoemaker (1987) | Couponing | Coupons produce a short-term increase in the brand's purchase share and consumers revert to their pre-coupon behavior immediately after their redemption purchase. |
| Cheong (1993) | Couponing | Current supermarket coupons hurt price perception of the brand on coupon and decrease repeat purchases for the brand on coupon. |


| Dodson, Tybout, Sternthal <br> (1978) | Couponing | Retraction of a deal undermine repeat <br> purchasing |
| :--- | :--- | :--- |
| Neslin (1990) | Couponing | Loyal users are disproportionately <br> attracted by the coupon. Coupons have a <br> pronounced effect upon market share, <br> although the effect varies from brand to <br> brand. |
| Lichtenstein, Netemeyer, <br> and Burton (1990) | Coupon-proneness and <br> Value Consciousness | CP is a significant predictor of coupon <br> redemption behavior and VC explains a <br> significant amount of variation after the <br> variation explained by CP is accounted <br> for. CP is more negatively corrclated <br> with brand loyalty than VC. |
| Bawa and Shoemaker <br> (1987) | Coupon-proneness | Coupon-prone houscholds tend to be <br> younger, larger, higher income, more <br> cducatcd, and morc likely to livc in <br> urban areas. Coupon-prone households <br> also tend to be less brand loyal and less <br> store loyal. |
| Hamm (1969) | Sampling | Free sample distribution improves <br> attitudes toward the product and <br> increases the intention to buy. |
| Shimp (1993) | Sampling | For new products, the catalytic effect of <br> sampling on trial usage and subsequent <br> purchase is strong. |
| Montgomery (1971) | Consumer <br> Characteristics | Venturesomeness, media exposure, and <br> gregariousness are found to be directly <br> related to dealing activity. Opinion <br> leadership, interest- and the presence of <br> children do not seem to relate to dealing <br> activity. |
| Blattberg, Buesing, <br> Peacock, and Sen (1978) | Consumer <br> Characteristics | Owning a car and a housc makes a <br> house-hold more deal-prone. High <br> income groups are more deal-prone. |
| Levedahl (1988) | Consumer <br> Characteristics | The greater the household's income <br> education, the more coupons it is likely <br> to redeem. After age 55, the probability <br> that coupons are redeemed increases. |
| Zeithaml (1985) <br> Consumer <br> females to conventional promotion <br> (newspaper adverising, coupons, price <br> promotions). Conventional promotions <br> seem to influence the senior customer <br> segment more than any other segment. |  |  |
| Bawa and Shoemaker | Consumer <br> Characteristics | The likelihood of a household making <br> incremental purchases in response t a a <br> direct mail coupon ppomotion is related <br> positively to wife's education, home <br> ownership, higher income and <br> household size. |

## 3. RESEARCH DESIGN AND METHODOLOGY

### 3.1. RESEARCH OBJECTIVES

The primary objective of the research is to examine the impact of sales promotions on consumer purchasing patterns for non-durable goods. The study also attempts to distinguish between purchasers of promoted consumer non-durable goods and nonpurchasers of promoted consumer non-durables as well as to investigate how these two groups differ in terms of certain psychographic and demographic parameters. Within the context of consumer-oriented sales promotions, certain independent variables such as brand-loyalty, value-consciousness, deal-proneness, liberalism, variety-seeking, and consumer characteristics are utilised in an attempt to explain various phenomena like preference for different types of sales promotions, stockpiling as a response to price discounts, evaluation of sales promotions and promoted brands, brand switching as a response to a price-off deal offer or to deal-retraction of a frequently purchased brand, purchasing unfamiliar brands on promotion, comparison shopping, responsiveness to the advertisements of promoted products, store-loyalty, attentiveness to promoted products as well as to frequently purchased brands, and complementary purchase.

Among the secondary aims of the study is to find out the type of promoted products that the respondents purchased in their recent shoppings (product category; promotion type offered), the reasons behind the purchasing and not purchasing of promoted products, the source through which the consumers are informed about
promotions, and the preference for monetary versus non-monetary promotions. Another secondary objective of the research is to investigate price discount thresholds for different product groups, to establish these thresholds for the selected set of products and to see whether the thresholds significantly differ between certain product categories.

### 3.2. CONTRIBUTION

A substantial number of researches and studies have been dedicated to sales promotions such as studies conducted on short-term and long-term impacts of sales promotions, consumer response to different type of promotions under various circumstances, attitudes towards promotions, evaluation of promoted brands, allocation of budgets between advertising and sales promotions. However these researches have been confined to more developed markets in the United States and in Western Europe. In countries like Turkey, which have only recently liberalized their economies and which are still at their developing stages, such empirical studies are very limited in number and extent (i.e. Yörük, 1993).

By its comprehensive and extensive nature, this study attempts to cast light upon and accommodate an understanding for a large number of phenomena related with sales promotions in which there are still too many unknowns in the context of Turkish consumer non-durables. Most of the variables tested and the operationalizations employed in the research are new in this context. Moreover, covering various variables simultaneously and not being restricted to specific product categories or sales promotion types, the research provides valuable overall reflections of consumer
response and purchasing patterns concerning sales promotions in the Turkish nondurable goods market and thereby generates some anchors for future research.

### 3.3. THEORETICAL FRAMEWORK

The theoretical framework of the thesis is constructed with several variables and research hypotheses which will be discussed next.

### 3.3.1. Variables and Operationalizations

A large number of variables have been included in the research in an attempt to provide insights to as many sales promotion phenomena as possible within the context of Turkish consumer non-durable goods market. Table 3.1 summarizes all the variables included in the analyses.

Table 3.1: List of Variables

| VARIABLE NAME | VARIABLE NUMBER* | SCALE |
| :---: | :---: | :---: |
| Being Promotion User / Non - User | 1 | Nominal |
| Name Of Promoted Product Purchased | 2,4,6 | Nominal |
| Promotion Type Offered By Product Purchased | 3,5,7 | Nominal |
| Reason For Not Purchasing Promoted Products | 8 | Nominal |
| Promotion Preference For Detergents | 9-21 | Interval |
| Promotion Preference For Soft-Drinks | 22-34 | Interval |
| Deal Proneness | 35 | Interval |
| Value Consciousness | 36,37 | Interval |
| Brand Loyalty | 38,48 | Interval |
| Purchase Of Preferred Brand When Not Promoted | 39 | Interval |
| Stockpiling | 40 | Interval |
| Purchasing Unfamiliar Brands On Promotion | 41 | Interval |


| Preference For "Every Day Low Pricing" | 42 | Interval |
| :---: | :---: | :---: |
| Comparison Shopping | 43 | Interval |
| Response To Promotions When There Is Inventory In Hand | 44 | Interval |
| Attention To Promoted Products | 45 | Interval |
| Purchasing The Single Brand On Promotion | 46 | Interval |
| Being Responsive To The Advertisements Of Promoted Products | 47 | Interval |
| Switching To A Brand After The First Time Purchase On Promotion | 49 | Interval |
| Having "Smart Shopper" Feelings When Purchasing Promoted Products | 50 | Interval |
| Response To Promotions When Frequently Purchased Brand Is Not On Promotion | 51 | Interval |
| Knowledge Of Pre-Promotion Price | 52 | Interval |
| Evaluation Of Frequently Promoted Brands | 53 | Interval |
| Unplanned Purchase Of A Product Because Its Promotion Is Liked | 54 | Interval |
| Impulse-Buying | 55 | Interval |
| Negative Attitudes Towards Promotions | 56 | Interval |
| Store Loyalty | 57,63 | Interval |
| Trial Of An Unfamiliar Brand Due To Its Promotion | 58 | Interval |
| Selective Attention To Frequently Purchased Brands | 59 | Interval |
| Purchase Of A Brand Only When Promoted | 60 | Interval |
| Brand Substitution Due To Availability Of A Lower Price Brand | 61 | Interval |
| Purchase Of A Brand Due To Its Promotion | 62 | Interval |
| Evaluation Of Promotions | 64 | Interval |
| Comparison Of Discounted Price Of A Brand With Other Brands | 65 | Interval |
| Unplanned Purchase Of A Frequently Purchased Brand Due To Its Promotion | 66 | Interval |
| Preparation Of A Shopping List | 67 | Interval |
| Brand Substitution Due To Deal Retraction | 68 | Interval |
| Marginal Utility | 69 | Interval |
| Complementary Purchase | 70 | Interval |
| Variety-Seeking | 71,78 | Interval |
| Shopping Competitiveness | 72 | Interval |
| Ability To Plan Ahead | 73,77 | Interval |
| Extravagance | 74 | Interval |
| Product Knowledge | 75 | Interval |


| Liberalism Vs. Conservatism | 76,81 | Interval |
| :---: | :---: | :---: |
| Impatience | 79 | Interval |
| Budgeting | 80 | Interval |
| Impulsiveness | 82 | Interval |
| Reason For Buying Promoted Products | 83 | Nominal |
| Source Of Information Regarding Promotions | 84 | Nominal |
| Preference For Monetary Vs. Non-Monetary Promotions | 85 | Nominal |
| Price Discount Thresholds | 86-101 | Ratio |
| Number Of Newspapers Read Daily | 102 | Ratio |
| Coupon Clipping | 103 | Nominal |
| Gender | 105 | Nominal |
| Age | 106 | Ordinal |
| Marital Status | 107 | Nominal |
| Married For How Many Years | 108 | Ratio |
| Number Of Children | 109 | Ratio |
| Number Of Children Under Six | 110 | Ratio |
| Education | 111 | Ordinal |
| Occupation | 112 | Nominal |
| Household Size | 113 | Ratio |
| Mode Of Transportation To The Place Of Shopping | 114 | Nominal |
| Monthly Net Household Income | 115 | Ordinal |
| Deal Proneness Index | $\begin{aligned} & (35+45+46+50 \\ & +54+58+68) / 7 \end{aligned}$ | Interval |
| Market Maven Index | $\begin{gathered} (52+65+67+72 \\ +75) / 5 \end{gathered}$ | Interval |

* Variable descriptions are given in Appendix III.

The first dependent variable in the study is being promotion user / non-user which is measured by the first question in the research questionnaire. This is a nominal variable operationalized by asking the respondents whether they have purchased any consumer non-durable goods on promotion during their recent shoppings.

The second dependent variable in the study is preference for different promotions offered by a detergent brand. In fact this is a set of thirteen variables measured in
question four through the respondent's level of preference for different promotions: contests, sweepstakes, free samples, price discount, on-pack / in-pack price discount coupons, price discount coupons in newspapers and magazines, gifts given with products, "buy one, get one free" type promotions, money-back guarantees, bonuspacks, free sports game tickets, and free movie / theatre / concert tickets with the condition that they are offered by a detergent brand. The level of preference for each promotion type is measured at the interval level on a 4 point itemized-scale ( $1=$ Strongly not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer).

The third dependent variable in the study is preference for different promotions offered by a soft-drink brand measured in question five. There is again a set of thirteen variables identical to the ones in the second dependent variable discussed. The respondent's level of preference for different promotions: contests, sweepstakes, free samples, price discount, on-pack / in-pack price discount coupons, price discount coupons in newspapers and magazines, gifts given with products, "buy one, get one free" type promotions, money-back guarantees, bonus-packs, free sports game tickets, and free movie / theatre / concert tickets are probed with the condition that they are offered by a soft-drink brand. The level of preference for each promotion type is again measured at the interval level on a 4 point itemized-scale ( $1=$ Strongiy not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer .

The sixth question is composed of 48 items which are used to measure a total of 42 dependent variables. A 4-point Likert Scale is used to measure the level of agreement with each of the items/statements in question 6 ( $1=$ Strongly disagree, $2=$ Disagree, $3=$ Agree, $4=$ Strongly agree). The set of variables mainly include deal-proneness, value
consciousness, brand loyalty, stockpiling, promotion evaluations, brand choice, comparison shopping, response to promotions as well as psychographic constructs such as liberalism, variety-seeking, ability to plan ahead, extravagance, impulsiveness, etc.

The dependent variable, deal proneness, is measured by the respondent's level of agreement with the statement "I enjoy buying promoted products". The construct is a modified version of Lichtenstein et. al.'s (1990) item measuring coupon-proneness. In addition to this variable, a deal-proneness index is created with the inclusion of seven variables associated with deal-proneness: liking to purchase promoted products (deal-proneness), paying attention to promoted products, purchasing the single brand on promotion, having "smart shopper" feelings when purchasing promoted products, unplanned purchasing of a product because its promotion is liked, trial of an unfamiliar brand due to its promotion, and switching to other brands when a brand stops promotions.

Another dependent variable is value consciousness: it is measured by the level of agreement with the statements " product quality is as important for me as price" and "I always try to make sure that I am getting my money's worth when I buy products". These items are replications of Lichtenstein et. al's (1990) operationalization of value consciousness.

The dependent variable, brand loyalty, is operationalized through two items: "In most product categories, there are certain brands for which I have a definite preference and

I only purchase these certain brands" (Mittal, 1994) and "I generally buy the same brands I have always bought" (Jacoby and Chestnut 1978, Raju, 1980).

Another variable related with brand loyalty to a certain extent is purchase of preferred brand when not promoted which is operationalized by the item "I continue to buy the brand which I have a preference for even when it is not on promotion".

Stockpiling is an important phenomenon in sales promotions researches (Assuncao and Meyer, 1993; Blattberg et. al., 1981; Gupta, 1988). Stockpiling is a variable which is difficult to measure and operationalize especially within the constraints of self-reported data versus scanner level data or an experimental design. Nevertheless, it is operationalized through the item "If the brand I prefer to buy offers a price discount, I buy more than the amount that I usually buy in order to stockpile". On the other hand, response to promotions when there is inventory in hand is a variable which is included by the author, to generate data on the after-effects of stockpiling due to a promotional offer. The author operationalizes this variable by the construct "If I have abundantly purchased a certain promoted product in my recent shoppings, I do not purchase a similar product before using up my inventory of the product, no matter how attractive its promotional offer might be".

Aaker's (1973) findings suggest that "new-triers" might react differently to a coupon than the loyal buyers of a promoted brand. Ehrenberg et. al (1994) reinforce this finding by suggesting that when a brand is available at a reduced price (or with a coupon), some consumers respond if the bargain is for a familiar brand, i.e., one already in their usage portfolio, but very rarely, if ever, if it is for a previously untried
brand. On the basis of the arguments that price-related promotions might only be rewarding the brand's existing customers, a dependent variable named "purchasing unfamiliar brands on promotion" is included in the study. The item measuring this variable is "I would not purchase an unfamiliar brand even if it is on promotion". Another relevant dependent variable is trial of an unfamiliar brand due to its promotion and is measured with the item "I might try a brand which I have not tried before, because of its promotion".
"Everyday low pricing" is reported to be an increasing popular retailing strategy (Neslin, 1990) and therefore is eligible for inclusion in the study. This dependent variable is operationalized by the level of agreement with the statement "I would prefer that manufacturer firms follow an "everyday low pricing" policy rather than offering occasional promotions".

The construct for comparison shopping used by Mittal (1994) has been the inspiration for creating the item "Before purchasing a product, I compare the unit prices of different brands within the same product category" which is used to measure the level of involvement in comparison shopping.

Moving on to attention to promoted products, Kotler (1994) indicates that "sales promotions often attract the brand switchers, because users of other brands do not always notice or act on a promotion" (p.666). In this study, attention to promoted products is taken as a dependent variable and is measured by the item "While I am shopping, a promoted product attracts my attention even if I have not tried that
product before". Another relevant variable in this context is, selective attention to frequently purchased brands. It is operationalized with the construct "While shopping, I don't pay any attention to the brands other than the ones I frequently purchase".

Kahn and Louic (1990) believe that if users of a brand purchase that brand on promotion, the long-term effect of that promotion on subsequent sales after promotions are retracted will depend upon whether only one brand or many brands are being promoted at one time. They show that the effects of promotions on subsequent choice behavior are influenced both by the pre-existing purchase patterns for the product category and the level of promotional activity in that category. Two relevant variables are included in this study: purchasing the single brand on promotion, measured with the item "If a single brand is promoted in a product category, then I buy that single promoted brand", purchase of a brand due to its promotion when many brands are promoted, measured by the level of agreement with the statement "If various brands in the same product category, including the brand that I frequently purchase, are on promotion, I purchase the brand of which I like the promotion".

Bemmaor and Mouchoux (1991) show with a factorial experiment that a strong positive interaction between price reduction and advertising is evidenced, and this interaction is smaller for the leading brands. Being responsive to the advertisements of promoted products is included in the analysis as a dependent variable and operationalized by the construct "If a product is advertised to be on promotion, I would like to see and examine that product".

Some researchers have proposed and found empirically that if consumers have been satisfied with the promoted brand, their satisfaction is reinforcing and leads to an increase in the probability of choosing the brand again after the promotion is withdrawn, particularly for previous non-users of the brand (Cotton and Babb, 1978; Rothschild and Gaidis, 1981). Switching to a brand after the first time purchase on promotion is measured by the level of agreement with the statement "If I like a brand which I have bought due to its promotion, I stop buying my previous brand and start buying this new brand".

Mittal (1994) presents a mediational model within an integrated framework for relating diverse consumer characteristics to supermarket coupon redemption. When providing directions for future research, Mittal (1994) states that "smart shopper" feelings is a possible construct for inclusion in the mediational network. Having "smart shopper" feelings when purchasing promoted products is therefore included in this research and is measured by the level of agreement with the statement "When I buy promoted products I feel that I am getting my money's worth". The operationalization of the variable is inspired by Lichtenstein et. al.'s (1990) operationalization of the "value consciousness" construct.

Another variable included in question six is response to promotions when frequently purchased brand is not on promotion and this variable is operationalized by the item "If the brands I generally buy are not on promotion, I prefer to buy the brands which are promoted". Again, this is a variable associated with deal proneness as well as with brand switching (Dodson, Tybout, Sternthal; 1978).

Feick and Price (1987, p.85) propose the existence of a group of consumers they call "market mavens". They are "individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information". On the basis of this assumption five variables are included in the analysis: knowledge of prepromotion price, comparison of discounted price of a brand with other brands, preparation of a shopping list, shopping competitiveness, and product knowledge. Knowledge pre-promotion price is measured by the item "I usually know the prediscount price of the brand that I generally buy". Comparison of discounted price of a brand with other brands is operationalized by the construct "Even if a brand is indicated to be on discount, I compare the discounted price of the brand with the prices of other brands in the same product category". Inman, McAlister, and Hoyer (1990) suggest that if the consumer assumes that the price has been discounted but does not proceed to verify this by comparing the promoted price to some standard (such as the price of other brands within the category or the price of the unpromoted brand in the consumer's memory), the potential exists for a less than optimal decision by the consumer. Coming to the variable measuring the likelihood of preparing a shopping list, this variable is measured by the item "I generally prepare a shopping list". Shopping competitiveness is operationalized by the item "I am better at shopping for bargains than most people" ( Lichtenstein et. al., 1990). The last variable associated with being a "market maven" is product knowledge measured by the construct "I have a lot of knowledge about how to select the best brand within a product class" ( Alba, 1983; Brucks, 1985; Gardner, 1983).

Davis, Inman, and McAlister (1992) conduct a study on the negative effect of promotion on brand evaluation and conclude that evaluations do not decrease for promoted brands and the failure to decrease is not due to other unconsidered factors or to the method. On the other hand, Aaker (1973) states that the impact of a promotion is reduced if the brand engages in dealing activities too frequently. A variable regarding evaluation of frequently promoted brands is included in this research and is operationalized by the construct "I would be suspicious of the quality of a frequently promoted brand".

The fact that consumers often purchase brands different from or in addition to those planned has led to an interest in impulse purchases. Impulse purchases or unplanned purchases are defined generally as purchases made in a store that are different from those the consumer planned to make prior to entering the store. Three variables associated with unplanned purchases are included in the study. The first one is unplanned purchase of a product because its promotion is liked and this variable is measured with the item "Without planning to do so, I may purchase a product just because I like its promotion". The second variable, impulse buying, is measured by the level of agreement with the statement "While I am making payment, I spontaneously decide to buy products located near the cash-point". The third one is unplanned purchase of a frequently purchased brand due to its promotion. This variable is measured by the item "When shopping, if I see that the brand I frequently purchase is on promotion, I decide to buy this brand without having planned to do so".

Shimp and Kavas (1984) find that both personal attitudes and subjective norms play major roles in determining intentions to use coupons. Parallel with this finding, a
variable named negative attitudes towards promotions is included in the study to see whether negative dispositions about sales promotions has any impact on consumer's purchasing patterns as well as response to promotions. This variable is operationalized with the construct "I would prefer that products are sold with no promotions at all".

The phenomenon of store loyalty in the context of promotions is investigated by Mulhern and Padgett (1995). The researchers suggest that shoppers who choose a store on the basis of price promotions may switch stores frequently, increasing their need for in-store information and their potential for purchasing regular price merchandise. On the other hand, prior studies have found significant cross-store price coefficients, indicating that promoting a brand in one store decreases sales of the same brand in competing stores (Kumar and Leone, 1988; Walters 1991). These studies provide indirect evidence that price promotions influence store choice decisions. Two variables on store loyalty is included in this study. One directly measures store loyalty with the item "I generally shop at the same place". The second one links store loyalty with promotions. The second variable is operationalized with the statement "If I hear that the brand I frequently buy is on promotion in a store other than the one I usually visit, I would go and buy the product from that other store".

Kalwani and Yim (1992) find that consumers who have been exposed to frequent price promotions in support of a given brand may come to form promotion expectations and typically will purchase the brand only when it is price promoted. Lattin and Bucklin (1989) also suggest that too much promotion and price discounting may adversely affect brand choice behavior. Though price promotion makes the brand more attractive and increases consumer response, a consumer
exposed to frequent price promotion may become accustomed to finding the brand available on promotion at a discounted price. The result is a diminished level of consumer response to the brand- a "wearout" effect over time for promotion and price discounting. A variable named "purchase of a brand only when promoted" is included in the study and measured by the item "If I know that a brand is frequently on promotion, I purchase that brand only when it is on promotion".

Moving on to brand switching, Gupta (1988) finds that promotions are very effective in drawing consumers from competitive brands and concludes that $84 \%$ of the sales increase due to promotion comes from brand switching. Kumar and Leone (1988) conducting research in this area demonstrate that within a store price promotion produce the largest amount of brand substitution, followed by featuring and displays. They show that a store's price promotion activities for a specific brand positively affect that store's sales of the brand and negatively affect sales of that brand's competitors within the store. Our research includes two variables on brand substitution. The first variable is brand substitution due to availability of a lower price brand and it is operationalized by using the item "If I see that a brand, which I think is of the same quality as the brand I frequently buy, is cheaper than the brand I frequently buy, then I would buy the cheaper brand". The second variable is brand substitution due to deal retraction and is measured with the construct "For some products, when the manufacturer stops offering promotions, I incline towards other brands". This construct is inspired from Lichtenstein et. al.'s (1990) construct for deal retraction.

Mittal (1994) uses a construct for measuring economic benefits of coupons : "I believe that one helps one's family financially by using coupons. This construct is modified to "Sales promotions contribute financially to those consumers who buy promoted products" and measures evaluation of promotions.

Marginal utility is also included in this research and the construct "Even when I find a real good discount on a consumer non-durable, I am careful to buy only as much as I need" is a slightly modified version of that which Lichtenstein et. al. (1990) use for marginal utility.

Walters (1991) demonstrates that retail price promotional activities conducted on a brand have significant positive impact on sales of brand complements in the store. The research results also show that complementary effects vary among product categories and among brands within a product category. The construct "If I buy a promoted product, I usually also buy its complement (i.e. toothbrush / toothpaste, spaghetti / spaghetti sauce)" is used in this study to measure complementary purchase.

The last part of question six is composed of a set of variables measuring consumer characteristics which are anticipated by the author to be associated with sales promotions phenomena. These psychographic variables are new in the context of sales promotions research and the constructs through which they are measured are introduced by the author. Ability to plan ahead is measured with the items "I generally live a planned life" and "I generally make short-term and long-term plans", extravagance with "I usually spend money without thought", impatience with "I like to obtain results in the shortest possible manner", liberalism with "I do not like buying
untried products" and "I like trying new things", variety seeking with "I like variety" and "Even though I like the brands I use, after a while I want to try different brands", budgeting with "I regularly prepare budgets for my expenditures", and finally impulsiveness with "I can make sudden decisions without much thought".

Preference for monetary versus non-monetary promotions is a dichotomous nominal variable operationalized in question nine. This variable is adopted from a study conducted by Diamond (1992) in which respondents are asked in a computer simulated environment to make a preference for $\$ 0.50$ worth of extra detergent free versus $\$ 0.50$ discount for a 64 ounce liquid laundry detergent having a regular price of $\$ 4.00$. In our study, respondents are asked to make a preference for a $100,000 \mathrm{TL}$ discount versus $100,000 \mathrm{TL}$ worth of extra product free for a 5 kg . laundry detergent having a regular price of $500,000 \mathrm{TL}$. This variable aims to measure consumer reactions to price discounts versus extra product promotions.

The last dependent variable is coupon clipping. This nominal variable is operationalized in question 12. Those who clip coupons from newspapers are considered coupon prone and those who do not are considered non-coupon prone.

A group of variables are directly related with promotions and are self-explanatory: name of promoted product purchased (question 2), promotion type offered by product purchased (question 2), reason for purchasing promoted products (question 7), reason for not purchasing promoted products (question 3), and source of information about promotions (question 8).

An important variable is price discount thresholds which have been investigated by numerous past research (Luce and Edwards, 1958; Della Bitta and Monroe, 1980; Gurumurthy and Little, 1989; Gupta and Cooper, 1992). In question 10 of the research questionnaire, respondents are asked to indicate the minimum level of percentage price discount that would increase their likelihood to buy shoes, tea, chocolate, deodorant, detergents, carbonated drinks, clothing, paper tissues, coffee, margarine, fruit juice, milk, fresh fruits, canned tuna fish, olive oil, and shampoo.

A last group of variables are related with consumer characteristics covering demographics and lifestyle. Gender (Zeithaml, 1985), age (Bawa and Shoemaker, 1987), marital status (Zeithaml, 1985), years of marriage, number of children (Montgomery, 1971), number of children under six (Blattberg et. al., 1978), income and education (Bawa and Shoemaker, 1987, 1989; Levedah1, 1988; Mittal, 1994), and household size (Cotton and Babb, 1978; Bawa and Shoemaker, 1987, 1989) compose the demographic variables. Number of newspapers read (Montgomery, 1971) and mode of transportation to the place of shopping are the lifestyle variables included in the study.

### 3.3.2. Relationships Among Variables and Research Hypotheses

In parallel with the large number of variables included in this research, a massive number of relationships have been investigated. Out of a total possible 850 relationships, 63 are pointed out and referenced as hypotheses from here on. There are 63 main hypotheses and including all the sub-hypotheses, the total number increases to 850 . Taking into account their magnitude in terms of number, the
research hypotheses are listed under seven major groups: hypotheses related with purchasing promoted products, deal-proneness, coupon-proneness, valueconsciousness, brand loyalty, consumer characteristics, and sales promotion types.

### 3.3.2.1. Hypotheses Related with Purchasing Promoted Products

H (1) : Purchasers of promoted products will differ from non-purchasers with respect to:
(1.1) Deal proneness
(1.2) Value consciousness
(1.3) Brand loyalty
(1.4) Purchase of preferred brand when not promoted
(1.5) Stockpiling
(1.6) Purchasing unfamiliar brands on promotion
(1.7) Preference for "every day low pricing"
(1.8) Comparison shopping
(1.9) Response to promotions when there is inventory in hand
(1.10) Attention to promoted products
(1.11) Purchasing the single brand on promotion
(1.12) Being responsive to the advertisements of promoted products
(1.13) Switching to a brand after the first time purchase on promotion
(1.14) Having "smart shopper" feelings when purchasing promoted products
(1.15) Response to promotions when frequently purchased brand is not on promotion
(1.16) Knowledge of pre-promotion price
(1.17) Evaluation of frequently promoted brands
(1.18) Unplanned purchase of a product because its promotion is liked
(1.19) Impulse-buying
(1.20) Negative attitudes towards promotions
(1.21) Store loyalty
(1.22) Trial of an unfamiliar brand due to its promotion
(1.23) Selective attention to frequently purchased brands
(1.24) Purchase of a brand only when promoted
(1.25) Brand substitution due to availability of a lower price brand
(1.26) Purchase of a brand due to its promotion
(1.27) Evaluation of promotions
(1.28) Comparison of discounted price of a brand with other brands
(1.29) Unplanned purchase of a frequently purchased brand due to its promotion
(1.30) Preparation of a shopping list
(1.31) Brand substitution due to deal retraction
(1.32) Marginal utility
(1.33) Complementary purchase
(1.34) Shopping competitiveness
(1.35) Product knowledge
(1.36) Ability to plan ahead
(1.37) Extravagance
(1.38) Impatience
(1.39) Liberalism
(1.40) Variety-seeking
(1.41) Budgeting
(1.42) Impulsiveness
(1.43) Coupon clipping

### 3.3.2.2. Hypotheses Related with Deal Proneness

H (2) : Deal-prones will differ from non-deal-prones with respect to:
(2.1) Value consciousness
(2.2) Brand loyalty
(2.3) Purchase of preferred brand when not promoted
(2.4) Stockpiling
(2.5) Purchasing unfamiliar brands on promotion
(2.6) Preference for "every day low pricing"
(2.7) Comparison shopping
(2.8) Response to promotions when there is inventory in hand
(2.9) Attention to promoted products
(2.10) Purchasing the single brand on promotion
(2.11) Being responsive to the advertisements of promoted products
(2.12) Switching to a brand after the first time purchase on promotion
(2.13) Having "smart shopper" feelings when purchasing promoted products
(2.14) Response to promotions when frequently purchased brand is not on promotion
(2.15) Knowledge of pre-promotion price
(2.16) Evaluation of frequently promoted brands
(2.17) Unplanned purchase of a product because its promotion is liked
(2.18) Impulse-buying
(2.19) Negative attitudes towards promotions
(2.20) Store loyalty
(2.21) Trial of an unfamiliar brand due to its promotion
(2.22) Selective attention to frequently purchased brands
(2.23) Purchase of a brand only when promoted
(2.24) Brand substitution due to availability of a lower price brand
(2.25) Purchase of a brand due to its promotion
(2.26) Evaluation of promotions
(2.27) Comparison of discounted price of a brand with other brands
(2.28) Unplanned purchase of a frequently purchased brand due to its promotion
(2.29) Preparation of a shopping list
(2.30) Brand substitution due to deal retraction
(2.31) Marginal utility
(2.32) Complementary purchase
(2.33) Shopping competitiveness
(2.34) Product knowledge
(2.35) Ability to plan ahead
(2.36) Extravagance
(2.37) Impatience
(2.38) Liberalism
(2.39) Variety-seeking
(2.40) Budgeting
(2.41) Impulsiveness
(2.42) Coupon clipping

### 3.3.2.3. Hypotheses Related with Coupon Proneness

$H(3)$ : Coupon-prones will differ from non-coupon-prones with respect to:
(3.1) Deal proneness
(3.2) Value consciousness
(3.3) Brand loyalty
(3.4) Purchase of preferred brand when not promoted
(3.5) Stockpiling
(3.6) Purchasing unfamiliar brands on promotion
(3.7) Preference for "every day low pricing"
(3.8) Comparison shopping
(3.9) Response to promotions when there is inventory in hand
(3.10) Attention to promoted products
(3.11) Purchasing the single brand on promotion
(3.12) Being responsive to the advertisements of promoted products
(3.13) Switching to a brand after the first time purchase on promotion
(3.14) Having "smart shopper" feelings when purchasing promoted products
(3.15) Response to promotions when frequently purchased brand is not on
promotion
(3.16) Knowledge of pre-promotion price
(3.17) Evaluation of frequently promoted brands
(3.18) Unplanned purchase of a product because its promotion is liked
(3.19) Impulse-buying
(3.20) Negative attitudes towards promotions
(3.21) Store loyalty
(3.22) Trial of an unfamiliar brand due to its promotion
(3.23) Selective attention to frequently purchased brands
(3.24) Purchase of a brand only when promoted
(3.25) Brand substitution due to availability of a lower price brand
(3.26) Purchase of a brand due to its promotion
(3.27) Evaluation of promotions
(3.28) Comparison of discounted price of a brand with other brands
(3.29) Unplanned purchase of a frequently purchased brand due to its promotion
(3.30) Preparation of a shopping list
(3.31) Brand substitution due to deal retraction
(3.32) Marginal utility
(3.33) Complementary purchase
(3.34) Shopping competitiveness
(3.35) Product knowledge
(3.36) Ability to plan ahead
(3.37) Extravagance
(3.38) Impatience
(3.39) Liberalism
(3.40) Variety-seeking
(3.41) Budgeting
(3.42) Impulsiveness

### 3.3.2.4. Hypotheses Related with Value Consciousness

H (4): Value-conscious consumers will differ from non-value-conscious consumers with respect to:
(4.1) Deal proneness
(4.2) Brand loyalty
(4.3) Purchase of preferred brand when not promoted
(4.4) Stockpiling
(4.5) Purchasing unfamiliar brands on promotion
(4.6) Preference for "every day low pricing"
(4.7) Comparison shopping
(4.8) Response to promotions when there is inventory in hand
(4.9) Attention to promoted products
(4.10) Purchasing the single brand on promotion
(4.11) Being responsive to the advertisements of promoted products
(4.12) Switching to a brand after the first time purchase on promotion
(4.13) Having "smart shopper" feelings when purchasing promoted products
(4.14) Response to promotions when frequently purchased brand is not on
promotion
(4.15) Knowledge of pre-promotion price
(4.16) Evaluation of frequently promoted brands
(4.17) Unplanned purchase of a product because its promotion is liked
(4.18) Impulse-buying
(4.19) Negative attitudes towards promotions
(4.20) Store loyalty
(4.21) Trial of an unfamiliar brand due to its promotion
(4.22) Selective attention to frequently purchased brands
(4.23) Purchase of a brand only when promoted
(4.24) Brand substitution due to availability of a lower price brand
(4.25) Purchase of a brand due to its promotion
(4.26) Evaluation of promotions
(4.27) Comparison of discounted price of a brand with other brands
(4.28) Unplanned purchase of a frequently purchased brand due to its promotion
(4.29) Preparation of a shopping list
(4.30) Brand substitution due to deal retraction
(4.31) Marginal utility
(4.32) Complementary purchase
(4.33) Shopping competitiveness
(4.34) Product knowledge
(4.35) Ability to plan ahead
(4.36) Extravagance
(4.37) Impatience
(4.38) Liberalism
(4.39) Variety-seeking
(4.40) Budgeting
(3.41) Impulsiveness
(4.42) Coupon clipping

### 3.3.2.5. Hypotheses Related with Brand Loyalty

$H(5):$ Brand loyals will differ from non-brand loyals with respect to:
(5.1) Deal proneness
(5.2) Value consciousness
(5.3) Purchase of preferred brand when not promoted
(5.4) Stockpiling
(5.5) Purchasing unfamiliar brands on promotion
(5.6) Preference for "every day low pricing"
(5.7) Comparison shopping
(5.8) Response to promotions when there is inventory in hand
(5.9) Attention to promoted products
(5.10) Purchasing the single brand on promotion
(5.11) Being responsive to the advertisements of promoted products
(5.12) Switching to a brand after the first time purchase on promotion
(5.13) Having "smart shopper" feelings when purchasing promoted products
(5.14) Response to promotions when frequently purchased brand is not on
promotion
(5.15) Knowledge of pre-promotion price
(5.16) Evaluation of frequently promoted brands
(5.17) Unplanned purchase of a product because its promotion is liked
(5.18) Impulse-buying
(5.19) Negative attitudes towards promotions
(5.20) Store loyalty
(5.21) Trial of an unfamiliar brand due to its promotion
(5.22) Selective attention to frequently purchased brands
(5.23) Purchase of a brand only when promoted
(5.24) Brand substitution due to availability of a lower price brand
(5.25) Purchase of a brand due to its promotion
(5.26) Evaluation of promotions
(5.27) Comparison of discounted price of a brand with other brands
(5.28) Unplanned purchase of a frequently purchased brand due to its promotion
(5.29) Preparation of a shopping list
(5.30) Brand substitution due to deal retraction
(5.31) Marginal utility
(5.32) Complementary purchase
(5.33) Shopping competitiveness
(5.34) Product knowledge
(5.35) Ability to plan ahead
(5.36) Extravagance
(5.37) Impatience
(5.38) Liberalism
(5.39) Variety-seeking
(5.40) Budgeting
(5.41) Impulsiveness
(5.42) Coupon clipping

H (5.43): There is an inverse association between brand loyalty and deal-proneness.

### 3.3.2.6. Hypotheses Related with Consumer Characteristics

Hypotheses related with consumer characteristics are constituted by two main groups of hypotheses: those related with demographics and those related with psychographics. Demographics include gender, age, marital status, presence ${ }^{-}$of children, , presence of children under six, education level, occupation, household size and monthly net household income. Among psychographic variables, liberalism, variety-seeking, and being market maven is included in the construction of the hypotheses.

### 3.3.2.6.1. Hypotheses Related with Demographics

H (6) : There is a relationship between purchasing promoted products and demographics : (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H(7):$ There is a relationship between deal-proneness and demographics : (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (8) : There is a relationship between coupon-proneness and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (9) : There is a relationship between value-consciousness and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(10)$ : There is a relationship between brand loyalty and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (11): There is a relationship between purchase of preferred brand when not promoted and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (12): There is a relationship between stockpiling and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(13)$ : There is a relationship between purchasing unfamiliar brands on promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (14): There is a relationship between preference for "every day low pricing" and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(15)$ : There is a relationship between comparison shopping and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (16): There is a relationship between response to promotions when there is inventory in hand and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (17): There is a relationship between attention to promoted products and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H(18)$ : There is a relationship between purchasing the single brand on promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (19): There is a relationship between being responsive to the advertisements of promoted products and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (20): There is a relationship between switching to a brand after the first time purchase on promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (21): There is a relationship between having "smart shopper" feelings when purchasing promoted products and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (22): There is a relationship between response to promotions when frequently purchased brand is not on promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (23): There is a relationship between knowledge of pre-promotion price and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (24): There is a relationship between evaluation of frequently promoted brands and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (25): There is a relationship between unplanned purchase of a product because its promotion is liked and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (26): There is a relationship between impulse-buying and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (27): There is a relationship between negative attitudes towards promotions and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (28): There is a relationship between store loyalty and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (29): There is a relationship between trial of an unfamiliar brand due to its promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (30): There is a relationship between selective attention to frequently purchased brands and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (31): There is a relationship between purchase of a brand only when promoted and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income.

H (32): There is a relationship between brand substitution due to availability of a lower price brand and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (33): There is a relationship between purchase of a brand due to its promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (34): There is a relationship between evaluation of promotions and demographics:
(a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (35): There is a relationship between comparison of discounted price of a brand with other brands and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (36): There is a relationship between unplanned purchase of a frequently purchased brand due to its promotion and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (37): There is a relationship between preparation of a shopping list and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (38): There is a relationship between brand substitution due to deal retraction and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (39): There is a relationship between marginal utility and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(40)$ : There is a relationship between complementary purchase and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(41)$ : There is a relationship between shopping competitiveness and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (42): There is a relationship between product knowledge and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (43): There is a relationship between ability to plan ahead and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (44): There is a relationship between extravagance and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (45): There is a relationship between impatience and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (46): There is a relationship between liberalism and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$H$ (47): There is a relationship between variety-seeking and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six,
(f) education level, (g) occupation, (h) household size, (i) monthly net household income

H (48): There is a relationship between budgeting and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income
$\mathrm{H}(49)$ : There is a relationship between impulsiveness and demographics: (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income

### 3.3.2.6.2. Hypotheses Related with Psychographics

### 3.3.2.6.2.1. Hypotheses Related with Liberalism

H (50) : Liberal consumers will differ from conservative consumers with respect to:
(50.1) Deal proneness
(50.2) Value consciousness
(50.3) Brand loyalty
(50.4) Purchase of preferred brand when not promoted
(50.5) Stockpiling
(50.6) Purchasing unfamiliar brands on promotion
(50.7) Preference for "every day low pricing"
(50.8) Comparison shopping
(50.9) Response to promotions when there is inventory in hand
(50.10) Attention to promoted products
(50.11) Purchasing the single brand on promotion
(50.12) Being responsive to the advertisements of promoted products
(50.13) Switching to a brand after the first time purchase on promotion
(50.14) Having "smart shopper" feelings when purchasing promoted products
(50.15) Response to promotions when frequently purchased brand is not on promotion
(50.16) Knowledge of pre-promotion price
(50.17) Evaluation of frequently promoted brands
(50.18) Unplanned purchase of a product because its promotion is liked
(50.19) Impulse-buying
(50.20) Negative attitudes towards promotions
(50.21) Store loyalty
(50.22) Trial of an unfamiliar brand due to its promotion
(50.23) Selective attention to frequently purchased brands
(50.24) Purchase of a brand only when promoted
(50.25) Brand substitution due to availability of a lower price brand
(50.26) Purchase of a brand due to its promotion
(50.27) Evaluation of promotions
(50.28) Comparison of discounted price of a brand with other brands
(50.29) Unplanned purchase of a frequently purchased brand due to its promotion
(50.30) Preparation of a shopping list
(50.31) Brand substitution due to deal retraction
(50.32) Marginal utility
(50.33) Complementary purchase
(50.34) Shopping competitiveness
(50.35) Product knowledge
(50.36) Ability to plan ahead
(50.37) Extravagance
(50.38) Impatience
(50.39) Variety-seeking
(50.40) Budgeting
(50.41) Impulsiveness
(50.42) Coupon clipping

### 3.3.2.6.2.2. Hypotheses Related with Variety Seeking

$H(51):$ Variety seekers will differ from non-variety-seekers with respect to:
(51.1) Deal proneness
(51.2) Value consciousness
(51.3) Brand loyalty
(51.4) Purchase of preferred brand when not promoted
(51.5) Stockpiling
(51.6) Purchasing unfamiliar brands on promotion
(51.7) Preference for "every day low pricing"
(51.8) Comparison shopping
(51.9) Response to promotions when there is inventory in hand
(51.10) Attention to promoted products
(51.11) Purchasing the single brand on promotion
(51.12) Being responsive to the advertisements of promoted products
(51.13) Switching to a brand after the first time purchase on promotion
(51.14) Having "smart shopper" feelings when purchasing promoted products
(51.15) Response to promotions when frequently purchased brand is not on promotion
(51.16) Knowledge of pre-promotion price
(51.17) Evaluation of frequently promoted brands
(51.18) Unplanned purchase of a product because its promotion is liked
(51.19) Impulse-buying
(51.20) Negative attitudes towards promotions
(51.21) Store loyalty
(51.22) Trial of an unfamiliar brand due to its promotion
(51.23) Selective attention to frequently purchased brands
(51.24) Purchase of a brand only when promoted
(51.25) Brand substitution due to availability of a lower price brand
(51.26). Purchase of a brand due to its promotion
(51.27) Evaluation of promotions
(51.28) Comparison of discounted price of a brand with other brands
(51.29) Unplanned purchase of a frequently purchased brand due to its
promotion
(51.30) Preparation of a shopping list
(51.31) Brand substitution due to deal retraction
(51.32) Marginal utility
(51.33) Complementary purchase
(51.34) Shopping competitiveness
(51.35) Product knowledge
(51.36) Ability to plan ahead
(51.37) Extravagance
(51.38) Impatience
(51.39) Liberalism
(51.40) Budgeting
(51.41) Impulsiveness
(51.42) Coupon clipping

### 3.3.2.6.2.3. Hypotheses Related with Being Market Maven

H (52): A consumer's market maven index will be associated with :
(52.1) Deal proneness
(52.2) Value consciousness
(52.3) Brand loyalty
(52.4) Purchase of preferred brand when not promoted
(52.5) Stockpiling
(52.6) Purchasing unfamiliar brands on promotion
(52.7) Preference for "every day low pricing"
(52.8) Comparison shopping
(52.9) Response to promotions when there is inventory in hand
(52.10) Attention to promoted products
(52.11) Purchasing the single brand on promotion
(52.12) Being responsive to the advertisements of promoted products
(52.13) Switching to a brand after the first time purchase on promotion
(52.14) Having "smart shopper" feelings when purchasing promoted products
(52.15) Response to promotions when frequently purchased brand is not on promotion
(52.16) Evaluation of frequently promoted brands
(52.17) Unplanned purchase of a product because its promotion is liked
(52.18) Impulse-buying
(52.19) Negative attitudes towards promotions
(52.20) Store loyalty
(52.21) Trial of an unfamiliar brand due to its promotion
(52.22) Selective attention to frequently purchased brands
(52.23) Purchase of a brand only when promoted
(52.24) Brand substitution due to availability of a lower price brand
(52.25) Purchase of a brand due to its promotion
(52.26) Evaluation of promotions
(52.27) Unplanned purchase of a frequently purchased brand due to its promotion
(52.28) Brand substitution due to deal retraction
(52.29) Marginal utility
(52.30) Complementary purchase
(52.31) Ability to plan ahead
(52.32) Extravagance
(52.33) Impatience
(52.34) Liberalism
(52.35) Variety-seeking
(52.36) Budgeting
(52.37) Impulsiveness

### 3.3.2.7. Hypotheses Related with Sales Promotion Types

H (53): There will be a difference between a detergent brand and a soft-drink brand with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (l) free movie / theatre / concert tickets
$H(54)$ : There will be a difference between males and females with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (l) free movie / theatre / concert tickets
$\mathrm{H}(55)$ : There will be a difference between different age groups with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts; (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1 " type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (1) free movie / theatre / concert tickets
$H(56)$ : There will be a difference between different marital status groups with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1 " type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (1) free movie / theatre / concert tickets
$\mathrm{H}(57)$ : There will be a difference between consumers who have children and consumers without children with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1 " type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (l) free movie / theatre / concert tickets
$\mathrm{H}(58)$ : There will be a difference between consumers who have children under six and consumers without children under six with regard to the degree of consumers'
preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (1) free movie / theatre / concert tickets
$\mathrm{H}(59)$ : There will be a difference between groups with different levels of education with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (l) free movie / theatre / concert tickets
$\mathrm{H}(60)$ : There will be a difference between different occupation groups with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1 " type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (1) free movie / theatre / concert tickets
$\mathrm{H}(61)$ : There will be a difference between households with different sizes with regard to the degree of consumers' preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of

1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (l) free movie / theatre / concert tickets
$H(62)$ : There will be a difference between different income groups with regard to the degree of preference for: (a) contests, (b) sweepstakes, (c) free samples, (d) price discounts, (e) on-pack discount coupon, (f) discount coupons printed in newspapers/magazines, (g) on-pack gifts, (h) "buy 2 at the price of 1" type promotions, (i) money-back guarantees if not satisfied, (j) bonus-packs, (k) free sports game tickets, (1) free movie / theatre / concert tickets

H (63): There will be a difference between groups with different (a) gender, (b) age, (c) marital status, (d) presence of children, (e) presence of children under six, (f) education level, (g) occupation, (h) household size, (i) monthly net household income with regard to the preference for a price discount versus an equivalent amount of free extra product offered by a detergent brand.

### 3.4. SAMPLING

### 3.4.1. Population and Sample

The population for this study is constituted by the consumers of non-durable goods. The reason for choosing non-durable goods as opposed to durable goods is that when the two are compared it is seen that today a huge percentage of all sales promotions are offered by those firms which manufacture consumer non-durables. Therefore, when investigating several aspects of sales promotions, it will be more meaningful to choose consumer non-durable goods because they are more associated with sales promotions.

The extent of the population is all non-durable-goods consumers living in Istanbul. In this case the element of the population becomes the single consumer. Therefore the unit of analysis in this research is the individual consumer of non-durable goods and the sample is comprised of consumers of non-durable goods who reside in Istanbul. For this research, a probabilistic sampling method should have been followed and ideally a simple random sample should have been drawn from the population. However, considering the costs and time involved in drawing a simple random sample from the population without a complete sampling frame, a simple random sample could not be used in this research. Therefore, the optimal sampling method is chosen as non-probabilistic, convenience sampling. The sample for this study is obtained through a convenience sampling procedure.

### 3.4.2. Sample Size

The sample size is calculated by employing absolute precision with the following formula:

$$
\mathrm{n}=\frac{\mathrm{Z}^{2}[\Pi(1-\Pi)]}{\mathrm{E}^{2}}
$$

where the level of confidence is set as $90 \%$ ( $z$-value $=1.65$ ), the level of precision $(E)$ is $5 \%$, and the proportion of consumers of non-durable goods ( $\Pi$ ) within the whole population is estimated to be $67 \%$. This estimation is made on the basis of the assumption that consumers who make regular purchases of non-durables are aged 15 and older. 1994 data provided by the Turkish State Statistics Institute show that 33\% of the population in Turkey are below 15 years of age and $67 \%$ of the population is aged 15 and older. Thus, assuming these proportions are accurate, the sample size becomes:

$$
n=\frac{(1.65)^{2}(0.67)(0.33)}{(0.05)^{2}}=241
$$

In order to attain the desired sample size, 270 questionnaires are prepared and distributed. From the total number of questionnaires distributed in different parts of Istanbul, 220 is returned back to the researcher despite all efforts and 197 of these are found to be suitable for inclusion in the final analysis. Thus, the sample size is 197
( $18.26 \%$ less than what it should be). With the known sample size, the level of confidence is revised as:

$$
\mathrm{Z}=\sqrt{\mathrm{n}\left(\mathrm{E}^{2}\right) /[\Pi(1-\Pi)]}=1.4925
$$

A z-score of 1.4925 corresponds to $86.45 \%$ confidence level which is very close to the initial level of confidence which was set at $90 \%$.

### 3.4.3. Composition of the Sample

The demographic composition of the sample in terms of gender, age, marital status, number of children, presence of children under six, education, occupation, household size, and monthly net household income is shown in Table 3.2.

Table 3.2: Demographic Composition of the Sample

|  | FRMOMAME | PERCENIACFI |
| :---: | :---: | :---: |
| GENDER |  |  |
| Female Male | $\begin{array}{r} 144 \\ 52 \end{array}$ | $\begin{aligned} & 73.5 \\ & 26.5 \end{aligned}$ |
| AGE |  |  |
| $\begin{aligned} & 20 \text { and Below } \\ & 21-30 \\ & 31-40 \\ & 41-50 \\ & 51-60 \\ & \text { Above } 60 \end{aligned}$ | $\begin{array}{r} \hline 30 \\ 96 \\ 28 \\ 32 \\ 6 \\ 5 \end{array}$ | $\begin{array}{r} \hline 15.2 \\ 48.7 \\ 14.2 \\ 16.2 \\ 3.0 \\ 2.5 \end{array}$ |


| MARITAL STATUS |  |  |
| :---: | :---: | :---: |
| Single <br> Married <br> Divorced <br> Widowed | $\begin{array}{r} 119 \\ 68 \\ 9 \\ \hline 1 \end{array}$ | $\begin{array}{r} \hline 60.4 \\ 34.5 \\ 4.6 \\ 0.5 \end{array}$ |
| NUMBER OF CHILIDREN |  |  |
| None One Two Three | $\begin{array}{r} 129 \\ 31 \\ 27 \\ 9 \end{array}$ | $\begin{array}{r} 65.8 \\ 15.8 \\ 13.8 \\ 4.6 \end{array}$ |
| CIILDDREN UNDER 6 |  |  |
| None <br> One or more | $\begin{array}{r} 187 \\ 9 \end{array}$ | $\begin{array}{r} 94.9 \\ 4.6 \end{array}$ |
| EDUCATION |  |  |
| Literate + Primary School <br> Secondary School <br> High School <br> University or above Other | $\begin{array}{r} 4 \\ 7 \\ 113 \\ 65 \\ 8 \end{array}$ | $\begin{array}{r} 2.0 \\ 3.6 \\ 57.4 \\ 33.0 \\ 4.1 \end{array}$ |
| OCCUPATION |  |  |
| Student <br> Housewife <br> Engineer / Architect <br> Tourism Employee <br> Manager/ Economist <br> University Faculty Member <br> Merchant / Trader <br> Works in a Bank <br> Health Service Employee <br> Works in Media <br> Retired <br> Other | $\begin{gathered} \hline 55 \\ 26 \\ 13 \\ 11 \\ 10 \\ 9 \\ 9 \\ 9 \\ 8 \\ 7 \\ 6 \\ 6 \\ 32 \end{gathered}$ | $\begin{array}{r} 28.5 \\ 13.5 \\ 6.8 \\ 5.7 \\ 5.2 \\ 4.7 \\ 4.7 \\ 4.2 \\ 3.6 \\ 3.1 \\ 3.1 \\ 16.7 \end{array}$ |
| HOUSEHOLD SIZE |  |  |
| One <br> Two <br> Three <br> Four <br> Five and Above | $\begin{gathered} 9 \\ 29 \\ 63 \\ 70 \\ 24 \end{gathered}$ | $\begin{array}{r} 4.6 \\ 14.9 \\ 32.3 \\ 35.9 \\ 12.3 \end{array}$ |


| MONTHLY NET HOUSEHOLD <br> INCOME |  |  |
| :---: | :---: | :---: |
| $15,000,000$ TL and below |  |  |
| $15,000,001-25,000,000 \mathrm{TL}$ | 11 | 3.2 |
| $25,000,001-50,000,000 \mathrm{TL}$ | 27 | 14.9 |
| $50,000,001-75,000,000 \mathrm{TL}$ | 30 | 16.0 |
| $75,000,001-100,000,000 \mathrm{TL}$ | 26 | 13.9 |
| $100,000,001-125,000,000 \mathrm{TL}$ | 10 | 5.3 |
| $125,000,001-150,000,000 \mathrm{TL}$ | 27 | 14.4 |
| $150,000,001-175,000,000 \mathrm{TL}$ | 9 | 4.8 |
| $175,000,001-200,000,000 \mathrm{TL}$ | 7 | 3.7 |
| $200,000,001 \mathrm{TL}$ and above | 34 | 18.2 |

### 3.5. DATA COLLECTION METHOD AND INSTRUMENT

The purposes of the study require the collection and use of primary data and therefore primary data collection methods have been used. Data has been collected through a self-administered, structured and undisguised questionnaire which is the outcome of an extensive literature review on sales promotion and which contains previously analyzed variables as well as novel variables.

### 3.5.1. Research Design

The study is both descriptive and exploratory in nature. It is descriptive because it attempts to describe various characteristics of purchasers and non-purchasers of promoted products, brand loyals and non-loyals, value-conscious and non-conscious, deal-prones and non-prones, liberals and conservatives, variety-seekers and nonseekers. It is exploratory in the sense that it explores numerous correlations and associations among the variables related to sales promotions phenomenon.

This is a cross-sectional study because it involves a sample of elements from the population of interest which consists, in this case, of all consumers of non-durable goods who live in Istanbul. Various characteristics of sample members are measured only once and the study reflects a snapshot of the variables at a single point in time. This is also a field study because none of the variables in the study are neither controlled nor manipulated.

### 3.5.2. Instrument

The questionnaire designed for data collection is a self-administered, undisguised and predominantly structured questionnaire that is comprised of mainly multichotomous fixed-alternative questions and a few open-ended questions. The questionnaire is undisguised because the purpose of the study is obvious to the respondents and no attempt has been made to hide the objectives of the study. The initial version of the questionnaire has been tested on a convenience sample of 20 people and necessary alterations and adjustments have been made in accordance with the results of the pilot study in order to prevent ambiguity, vagueness and misunderstanding.

The questionnaire starts with a brief instructions section, explaining the purposes and the scope of the study and is comprised of 23 questions measuring different variables. The first question identifies promotion users and non-users. Question two investigates product types and brands purchased on promotion as well as the type of promotion. The third question is designed to examine the reasons for not buying a promoted product. Questions four and five measure the degree of preference for different kinds
of promotional activities for detergents and for soft drinks, respectively, on a fourpoint itemized rating scale.

Question six requests the respondents to specify their level of agreement with 48 different statements aimed to measure the respondent's attitudes, habits, behaviors, dispositions, and evaluations regarding consumer-oriented sales promotions as well as some psychographic variables. The 48 items in question six are measured on a 1 to 4 ( $1=$ strongly disagree, $2=$ disagree, $3=$ agree, $4=$ strongly agree) Likert Scale of Summated Ratings and negatively valenced questions are reverse coded for the analysis.

Question seven investigates the purpose for purchasing promoted products and question eight identifies the sources of information regarding promotional activities. Question nine is a dichotomous variable measuring the preference for monetary versus non-monetary promotions. Question ten aims to establish discount thresholds for 16 different non-durable consumer goods by asking the respondents to state the minimum level of price cut that would increase their likelihood for the purchasing each product.

Questions eleven, twelve, and thirteen asks information about newspaper readership, clipping coupons given by newspapers, and intentions to switch to other newspapers due to promotions.

Finally, questions fourteen to twenty-three are designed to collect demographic data including gender, age, marital status, number of children, age of children, education,
occupation, household size, modes of transportation to the place of shopping, and income.

### 3.6. DATA ANALYSIS METHODS

Following the data collection stage, the data compiled are edited for inclusion in the statistical analysis. All the data that are found eligible for incorporation in the research are coded and then loaded into the Statistical Package for Social Sciences (SPSS) software (Release 5.0.1. for Windows ). Data analyses and statistical tests are carried out using SPSS. The tests performed include $t$-test for independent samples, $t$-test for paired samples, one-way analysis of variance (ANOVA), and cross-tabulation. For each of the hypotheses, the tests conducted are listed in Table 3.3 below. In addition to those listed, factor analysis is performed for data reduction and discriminant analysis is performed for data classification purposes.

Table 3.3. Data Analysis Methods

| HYPOTHESIS | SUB-HYPOTHESIS | STATISTICAL TEST |
| :---: | :---: | :---: |
| Hypothesis 1 | H (1.1) | T-test for independent samples |
|  | $\mathrm{H}(1.2)-\mathrm{H}(1.42)$ | T-test for independent samples |
|  | H (1.43) | Cross-tabulation |
| Hypothesis 2 | $\mathrm{H}(2.1)-\mathrm{H}(2.41)$ | T-test for independent samples |
|  | H (2.42) | Cross-tabulation |
| Hypothesis 3 | $\mathrm{H}(3.1)-\mathrm{H}(3.42)$ | T-test for independent samples |
| Hypothesis 4 | H (4.1) - H (4.41) | T-test for independent samples |
|  | H (4.42) | Cross-tabulation |
| Hypothesis 5 | $\mathrm{H}(5.1)-\mathrm{H}(5.41)$ | T-test for independent samples |
|  | H (5.42) | Cross-tabulation |
|  | H (5.43) | Pearson product moment correlation |
| Hypothesis 6 | H (6.a) - H (6.i) | Cross-tabulation |
| Hypothesis 7 | H (7.a) | T-test for independent samples |
|  | H (7.b) | One-way ANOVA |
|  | H (7.c) | One-way ANOVA |
|  | H (7.d) | T-test for independent samples |
|  | H (7.e) | T-test for independent samples |
|  | H (7.f) | One-way ANOVA |
|  | H (7.g) | One-way ANOVA |
|  | H (7.h) | One-way ANOVA |
|  | H (7.i) | One-way ANOVA |
| Hypothesis 8 | $\mathrm{H}(8 . a)-\mathrm{H}(8 . \mathrm{i})$ | Cross-tabulation |
| Hypotheses 9-49 | H (9-49.a) | T-test for independent samples |
|  | H (9-49.b) | One-way ANOVA |
|  | H (9-49.c) | One-way ANOVA |
|  | H (9-49.d) | T-test for independent samples |

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|  | H (9-49.e) | T-test for independent samples |
| :---: | :---: | :---: |
|  | H (9-49.f) | One-way ANOVA |
|  | H (9-49.g) | One-way ANOVA |
|  | H (9-49.h) | One-way ANOVA |
|  | H (9-49.i) | One-way ANOVA |
| Hypothesis 50 | $\mathrm{H}(50.1)-\mathrm{H}(50.41)$ | T-test for independent samples |
|  | H (50.42) | Cross-tabulation |
| Hypothesis 51 | H (51.1) - H (51.41) | T-test for independent samples |
|  | H (51.42) | Cross-tabulation |
| Hypothesis 52 | H (52.1) - H (52.38) | Pearson product moment correlation |
| Hypothesis 53 | H (53.a) - H (53.1) | T-test for paired samples |
| Hypothesis 54 | H (54.a) - H (54.1) | T-test for independent samples |
| Hypothesis 55 | H (55.a) - H (55.1) | One-way ANOVA |
| Hypothesis 56 | H (56.a) - H (56.1) | One-way ANOVA |
| Hypothesis 57 | H (57.a) - H (57.1) | T-test for independent samples |
| Hypothesis 58 | H (58.a) - H (58.1) | T-test for independent samples |
| Hypothesis 59 | H (59.a) - H (59.1) | One-way ANOVA |
| Hypothesis 60 | H (60.a) - H (60.1) | One-way ANOVA |
| Hypothesis 61 | H (61.a) - H (61.1) | One-way ANOVA |
| Hypothesis 62 | H (62.a) - H (62.1) | One-way ANOVA |
| Hypothesis 63 | H (63.a) - H (63.1) | Cross-tabulation |

### 3.7. LIMITATIONS OF THE STUDY

Like any other social sciences research, this study also has a number of limitations. The major limitation is that the research attempts to investigate a very large number of, perhaps too many, phenomena simultaneously leading to less in-depth analyses of the variables tackled. With the aim of providing insights to many issues related with sales promotions, the study somehow fails to focus on specific issues and due to the
lack of concentration, only generates overall pictures. The results and the conclusions drawn are non-specific and universal and therefore may vary along different product classes.

A second limitation is related with the data collection method. The research questionnaire is unfortunately too sophisticated for consumers with low education and therefore predominantly reflects the views of consumers with higher levels of education. Perhaps a more important limitation regarding data collection method is the obligation to collect self-reported data instead of observational data. Excluding variables such as deal-proneness, value-consciousness, brand loyalty, demographic and psychographic variables, and variables measuring attitudes, views, perceptions, evaluations, it would be more appropriate to measure all variables regarding sales promotions and consumer response using scanner level data or within an experimental setting.

Lastly, it is worth mentioning the limitations concerning sampling. The results could have been much more unbiased and representative if it would be possible to employ a probabilistic sampling method, ideally simple random sample (SRS) method instead of convenience sampling. Finally, it would have been ideal if the computed sample size could have been reached at the end of the data collection procedure.

## 4. RESEARCH FINDINGS

The findings attained as a result of statistical analyses will be examined under eight main groups. First general findings are examined, followed by findings on purchasing promoted products. Thirdly, findings on coupon / deal proneness and value consciousness are elaborated on. Then, findings on brand loyalty are explained. There is a section on findings related to consumer characteristics: demographic and psychographic characteristics are dealt with separately. The findings on types of consumer oriented sales promotions are tackled in full detail, followed by a brief section on ancillary findings. Finally, findings of the research is summed up ( the table with the full list of hypotheses supported and not supported is given in Appendix IV).

### 4.1. GENERAL FINDINGS

An overview of frequency distributions as well as descriptive data provide important insights to the various phenomena examined in this research. Table 4.1. shows that $41.12 \%$ of the sample indicates having made recent purchases of products on promotion. On the other hand, $58.88 \%$ mentions not having made recent purchases of promoted products.

Table 4.1.: Recent Purchases of Promoted Products

| Recent Purchases of Promoted Products | Frequency | Percentage |
| :--- | :---: | :---: |
| Purchased | 81 | 41.12 |
| Not purchased | 116 | 58.88 |
| TOTAL | 197 | 100.00 |

The respondents who indicate having bought promoted products are asked to list three products bought on promotion, their product categories and type of promotions that they offer . All products listed are put together and split according to their product groups in Table 4.2. The inspection of the table reveals that out of 131 promotional purchases, promotions are predominantly offered by detergents and household cleaning material with a percentage of 33.58 , followed by foods ( $15.26 \%$ ) and personal care products (11.50) such as toothpastes, deodorants, shampoos. Beverages offer promotions $8.40 \%$ of the time. Outside the supermarkets there is the category of newspapers and magazines with a high percentage of 18.30 followed by cosmetics with a percentage of $7.63 \%$. Clothing has a minimal share of $1.51 \%$.

Table 4.2: Promoted Products Purchased

| Product Category | Frequency | Percentage |
| :--- | :---: | :---: |
| Detergents and Household Cleaning | 44 | 33.58 |
| Foods | 20 | 15.26 |
| Personal Care Products | 15 | 11.50 |
| Beverages | 11 | 8.40 |
| Cosmetics | 10 | 7.63 |
| Clothing | 2 | 1.51 |
| Newspapers and Magazines | 24 | 18.30 |
| Other | 5 | 3.82 |
| TOTAL |  | 100.00 |

Coming to the type of promotions offered when promoted products are purchased, Table 4.3 shows that gifts in the form of on-pack other products or little presents have a large share of $45.13 \%$. In the second place there are price discounts with a share of $18.60 \%$. Offered less commonly are bonus packs, sweepstakes, and "buy 1 get 1 free" promotions with respective shares of $7.96 \%, 5.31 \%$, and $1.77 \%$. The remaining $21.23 \%$ is constituted by other types of promotions mostly coupons given by newspapers to be entitled to receive mostly durable products.

Table 4.3: Promotion Types offered by Recently Purchased Products

| Promotion Type | Frequency | Percentage |
| :--- | :---: | :---: |
| Gifts | 51 | 45.13 |
| Price Discounts | 21 | 18.60 |
| Bonus Packs | 9 | 7.96 |
| Sweepstakes | 6 | 5.31 |
| "Buy 1 Get 1 Free" | 2 | 1.77 |
| Other | 24 | 21.23 |
| TOTAL | 113 | 100.00 |

When the reasons for not purchasing promoted products are examined, the leading reason is that consumers do not trust either the promotions offered or the quality of products offering promotions.

Table 4.4: Reasons for Not Purchasing Promoted Products

| Reason for not Purchasing <br> Promoted Products | Frequency <br> No trust in promoted products | 23 |
| :--- | :---: | :---: |
| Percentage |  |  |
| Preferred brand not promoted <br> promoted products | 12 | 12.96 |
| Promotions not attractive enough | 8 | 12.50 |
| Not in need of available promoted <br> products | 8 | 8.33 |
| Have not shopped recently | 7 | 7.33 |
| Products without promotions are <br> more economical | 5 | 5.21 |
| Refuse to buy promoted products | 4 | 4.17 |
| Other | 17 | 17.71 |
| TOTAL | 96 | 100.00 |

As can be seen in Table 4.4, out of 116 respondents who indicate not having purchased promoted products recently in Table 4.1, only 96 provide reasons for not making such purchases. People who do not buy promoted products because they have no confidence in promotions constitute about $24 \%$ of the sample. The second place has two occupants with $12.5 \%$ shares each: preferred brand is not on promotion and not coming across or noticing promoted products. At the fourth place there are again two different reasons with $8.33 \%$ shares: promotions not attractive enough and not in need of available promoted products. The other reasons mentioned are not having shopped recently, believing promoted products are more expensive, and strong refusal to buy promoted products. When the composition of the sample is closely looked at, it can be observed that putting together those who don't trust promotions, who find
promoted products more expensive and who have strong negative evaluations of promotions, they add up to $33.34 \%(23.96 \%+5.21 \%+4.17 \%)$ of those who have not bought promoted products recently. It can be argued that consumers with other reasons are likely to buy promoted products in their next shoppings and that their not purchasing promoted products recently could be specific to that time period. For $33.34 \%$ of consumers who have reasons irrelevant to the time factor, that is, reasons related to attitudes towards promotions, the likelihood of making promotional purchases in the next shoppings can be assumed to be much lower.

Within the course of the questionnaire, respondents are also asked for the reasons for buying promoted products regardless of their recent purchases. Interesting results emerge from the frequency distribution tabulated in Table 4.5; $50 \%$ of the consumers indicate that they buy promoted products because those promoted products that they buy are the products that they usually buy anyway. Their purchasing of the product is not only related with the promotion offered. This means that when promotions are offered, loyal customers are being rewarded. Forward buying due to availability of a promotion has a $26.5 \%$ share. About $19.4 \%$ of the sample buy promoted products just because they like the promotion offered.

Table 4.5: Reason for Purchasing Promoted Products

| Reason for Purchasing Promoted Products | Frequency | Percentage |
| :--- | :---: | :---: |
| Not because of the promotion/it is a regularly purchased brand | 98 | 50.00 |
| Forward buying / was planning to buy in the future | 52 | 26.50 |
| Promotion liked | 38 | 19.40 |
| Other | 8 | 4.10 |
| TOTAL | 196 | 100.00 |

It is also very helpful to know how consumers are informed about promotions, since it is important to publicize promotions in the most effective way. The importance of POP materials such as features, displays, shelf-flyers, shelf-cards, banners used at the point of purchase clearly emerges as a result of the inspection of Table 4.6.

Table 4.6: Sources of Information about Promotions

| Source of Information about <br> Promotions <br> Frequency | Percentage |  |
| :--- | :---: | :---: |
| Place of shopping | 127 | 66.49 |
| Newspapers / magazines | 28 | 14.66 |
| TV / Radio | 26 | 13.61 |
| Mailed brochures | 6 | 3.14 |
| Friends / neighbors / relatives | 3 | 1.57 |
| Other | 1 | 0.52 |
| TOTAL | 191 | 100.00 |

When they are asked how they are informed about sales promotion activities, $66.5 \%$ of the sample indicate the source as being the place of shopping. Newspapers and magazines ( $14.66 \%$ ) and TV and radio (13.61\%) put together as media make up $28.27 \%$. This shows that the place of shopping plays a more important role in informing consumers about promotional activities. Only $3.14 \%$ of the sample are mainly informed about promotions through mailed brochures and a negligible percentage ( $1.57 \%$ ) of consumers hear about promotions from their friends, relatives or neighbors.

It is also interesting to see the media exposure rates of respondents. Out of 196, only one respondent has indicated reading no newspaper. The composition of the remaining 195 respondents in terms of newspaper readership is given below (Table 4.7)

Table 4.7: Media Exposure

| Number of Newspapers Read <br> Daily | Frequency | Percentage |
| :--- | :---: | :---: |
| One | 66 | 33.85 |
| Two | 89 | 45.64 |
| Three and more | 40 | 20.51 |
| TOTAL | 195 | 100.00 |

The majority of respondents (45.64\%) read two newspapers daily. $33.85 \%$ read one newspaper daily. The percentage of people in the sample who read three or more newspapers regularly is considerably high with $20.51 \%$.

Table 4.8: Modes of Transportation to the Place of Shopping

| Modes of Transportation to the <br> Place of Shopping | Frequency | Percentage |
| :--- | :---: | :---: |
| Own car | 77 | 41.40 |
| On foot | 46 | 24.73 |
| Taxi | 28 | 15.05 |
| Public bus | 19 | 10.21 |
| Dolmus | 11 | 5.91 |
| Other | 5 | 2.69 |
| TOTAL | 186 | 100.00 |

Moving on to the modes of transportation to the place of shopping, majority of consumers $(41.40 \%)$ included in the sample travel to the place of shopping with their own car as shown in Table 4.8. In the second place are the consumers who mostly walk to the place of shopping with $24.73 \%$. Then, there is $15.05 \%$ who go by taxi, $10.21 \%$ by public bus, and $5.91 \%$ by dolmuş. $2.69 \%$ of respondents use other modes of transportation to the place of shopping.

Another important general finding is the descriptive data on key variables included in the statistical analyses are tabulated in Table 4.9.

Table 4.9: Means and Standard Deviations of Key Variables

| VARIABLE | MEAN* | STANDARD <br> DEVIATION <br> VIIN |
| :--- | :---: | :---: |
| Value Consciousness | 3.60 | 0.56 |
| Brand Loyalty | 3.03 | 0.81 |
| Store Loyalty | 2.90 | 0.65 |
| Liberalism | 2.88 | 0.71 |
| Deal Proneness | 2.78 | 0.78 |
| Variety Seeking | 2.67 | 0.70 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

On a 4-point scale, the mean score for deal proneness is found to be 2.78 in the sample. Value consciousness score is very high with 3.60 . The scores on brand loyalty, store loyalty, liberalism, and variety seeking is also high with respective scores of $3.03,2.90,2.88$, and 2.67 .

Before moving on to the specific findings including the findings related to the hypotheses, the results on factor analysis will be discussed. A factor analysis is performed with a set of 36 interval scale variables measured on a 4-point Likert Scale. The variables mainly concern such phenomena as deal-proneness, value consciousness, brand loyalty, stockpiling, evaluations of promotions, responses to promotions, comparison shopping, store loyalty, complementary purchase, and marginal utility, leaving out variables measuring psychographic parameters. A reverse coding procedure is applied to negatively valenced variables for achieving the compatibility of scores. (See Appendix V for full tabulations).

The sample size of 197 is adequate on the basis of the calculation that five times the number of variables is the minimum required sample size. Having 31 variables included in the analysis, the minimum sample size should be 155 . The sample size of 197 fulfils this criterion. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is also greater than 0.5 with a value of 0.70679 , giving support to the adequacy of the sample size. Bartlett Test of Spherecity is at 0.000 indicating the correlation matrix is an identity.

The Eigenvalues given in the initial statistics (Table 4.10) show the variance explained by each factor. Twelve factors emerge with Eigenvalues equal to one or above. However, when all twelve factors are kept in the analysis, the varimax rotation fails to converge in iterations. To be able to come up with a meaningful extraction of factors from the analysis the number of factors in the analysis needs to be reduced. Therefore, only the factors with an Eigenvalue of 1.5 and above are kept for further analysis. The six factors with Eigenvalues 1.5 and above explain $42.7 \%$ of the total variance. The
first three factors alone explain $28.9 \%$ of the variance and the other three explain $13.8 \%$ of the variance all together. The Eigenvalue of Factor 1 is 4.82 and it explains $13.4 \%$ of the variance by itself. Factor 6 has the smallest explanatory power explaining only $4.3 \%$ of the total variance.

Table 4.10: Factor Analysis / Initial Statistics

| Initial Statistics: |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Communality | * Factor | Eigenvalue | Pct of Var | Cum Pct |  |
|  | $*$ |  |  |  |  |
| 1,00000 | $*$ | 1 | 4,82079 | 13,4 | 13,4 |
| 1,00000 | $*$ | 2 | 3,28821 | 9,1 | 22,5 |
| 1,00000 | $*$ | 3 | 2,30918 | 6,4 | 28,9 |
| 1,00000 | $*$ | 4 | 1,77806 | 4,9 | 33,9 |
| 1,00000 | $*$ | 5 | 1,62744 | 4,5 | 38,4 |
| 1,00000 | $*$ | 6 | 1,56417 | 4,3 | 42,7 |

In the final statistics, communalities are given for each variable reflecting the explanatory power of each variable (Table 4.11). The inspection of the final statistics show that the best captured variable in the analysis is Variable 48 with a communality of 0.66103 whereas the most poorly captured variable is Variable 55 with a communality value of 0.23331 .

Table 4.11: Factor Analysis / Final Statistics

| Einal Statistics: |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Communality | * | Eactor | Eigenvalue | Pct of Var | Cum Pct |  |
| VAR00035 | , 52762 | * | 1 | 4,82079 | 13,4 | 13,4 |  |
| VAR00036 | , 42389 | * | 2 | 3,28821 | 9,1 | 22,5 |  |
| VAR00037 | , 43477 | * | 3 | 2,30918 | 6,4 | 28,9 |  |
| VAR00038 | , 61618 | * | 4 | 1,77806 | 4,9 | 33,9 |  |
| VAR00039 | , 55837 | * | 5 | 1,62744 | 4,5 | 38,4 |  |
| VAR00040 | , 35346 | * | 6 | 1,56417 | 4,3 | 42.7 |  |
| VAR00041 | , 45768 | * |  |  |  |  |  |
| VAR00042 | , 37831 | * |  |  |  |  |  |
| VARO0043 | , 40342 | * |  |  |  |  |  |
| VAR00044 | , 28663 | * |  |  |  |  |  |
| VAR00045 | . 49808 | * |  |  |  |  |  |
| VAR00046 | , 45903 | * |  |  |  |  |  |
| VAR00047 | , 52333 | * |  |  |  |  |  |
| VARO0048 | ,66103 | * |  |  |  |  |  |
| VAR00049 | , 34969 | * |  |  |  |  |  |
| VAR00050 | . 53537 | * |  |  |  |  |  |
| VAR00051 | . 35767 | * |  |  |  |  |  |
| VAR00052 | . 32076 | * |  |  |  |  |  |
| VAR00053 | , 30291 | * |  |  |  |  |  |
| VAR00054 | . 46144 | * |  |  |  |  |  |
| VAR00055 | , 23331 | * |  |  |  |  |  |
| VAR00056 | ,44604 | * |  |  |  |  |  |
| VAR00057 | , 44716 | * |  |  |  |  |  |
| VAR00058 | . 49875 | * |  |  |  |  |  |
| VAR00059 | , 39554 | * |  |  |  |  |  |
| VAR00060 | , 42693 | * |  |  |  |  |  |
| VAR00061 | , 53065 | * |  |  |  |  |  |
| VAR00062 | , 33924 | * |  |  |  |  | - |
| VAR00063 | , 38012 | * |  |  |  |  |  |
| VAR00064 | , 30779 | * |  |  |  |  |  |
| VAR00065 | . 43460 | * |  |  |  |  |  |
| VAR00066 | , 45410 | * |  |  |  |  |  |
| VAR00067 | , 37382 | * |  |  |  |  |  |
| VAR00068 | , 51638 | * |  |  |  |  |  |
| VAR00069 | , 29823 | * |  |  |  |  |  |
| VAR00070 | , 39555 | * |  |  |  |  |  |

In order to make the factor solution easier to interpret, the axes of the factor loadings are rotated to achieve a simple structure. The varimax rotation performed in the analysis yields the rotated factor matrix. The factors are formed after analyzing this matrix. Each variable has a score for each of the six factors. The variable belongs to the factor for which it has the highest score. The composition of each factor is given in Table 4.12 with relevant variables and corresponding loadings.

The inspection of the combination of variables and the corresponding loading scores forming the factors reveal the following labels to be appropriate for each factor:

- Factor 1: Promotion-proneness
- Factor 2: Promotion evaluations
- Factor 3: Brand loyalty
- Factor 4: Brand switching
- Factor 5: Value consciousness
- Factor 6: Being a "Smart Shopper"

Promotion proneness, promotion evaluations, brand loyalty, brand switching, value consciousness, and being a "smart shopper" emerge as the remarkable factors that are likely to play important roles in explaining consumer-oriented sales promotions phenomena. These factors extracted as a result of the factor analysis carried out will be used as discriminating variables in the discriminant analysis to be performed later in this chapter.

Table 4.12: Factor Analysis / Rotated Factor Loadings

| FACTOR 1 | LOADINGS |
| :---: | :---: |
| V50: Having "Smart Shopper" feelings when purchasing promoted products | 0.67309 |
| V60: Purchase of a brand only when promoted | 0.60264 |
| V58: Trial of an unfamiliar brand due to its promotion | 0.59391 |
| V54: Unplanned purchase of a product due to its promotion | 0.54767 |
| V62: Purchase of a brand because promotion is liked most | 0.52346 |
| V35: Deal Proneness | 0.50552 |
| V55: Impulse buying | 0.43861 |
| V49: Switching to a brand after the first time purchase on promotion | 0.40785 |
| FACTOR 2 |  |
| V56: Not having negative attitudes towards promotions | 0.65744 |
| V53: Not having negative evaluations for frequently promoted brands | 0.50964 |
| V41: Purchasing unfamiliar brands on promotion | 0.45295 |
| V42: Preference for promotions vs "everyday low pricing" | 0.45133 |
| V44: Purchasing products due to attractiveness of promotions although there is inventory in hand | 0.43408 |
| V59: Attention to frequently purchased brands | 0.38636 |
| V69: Purchasing required amount of product even it is discounted | 0.36057 |
| V47: Responsiveness to the advertisements of promoted products | -0.43608 |
| V45: Attentiveness to promoted products | -0.42845 |
| V64: Positive evaluations about sales promotions | -0.28256 |
| FACTOR 3 |  |
| V48: Brand loyalty | 0.76428 |
| V38: Brand loyalty | 0.76129 |
| V39: Purchasing preferred brand even if not promoted | 0.66064 |
| FACTOR 4 |  |
| V46: Purchasing the single brand on promotion | 0.58066 |
| V68: Switching to other brands when a brand retracts promotions | 0.56467 |
| V70: Buying the complementary of a product bought on promotion | 0.55690 |
| V66: Unplanned purchase of a frequently purchased brand due to its promotion | 0.48180 |
| V57: Switching stores due to promotion of a frequently purchased brand | 0.45122 |
| V51: Switching to promoted brands when frequently purchased brand is not promoted | 0.44378 |
| FACTOR 5 |  |
| V37: Value consciousness | 0.64309 |
| V36: Evaluation of quality to be as important as price | 0.61502 |
| V61: Buying the brand which is priced lower than, but of the same quality as the frequently purchased brand | 0.47277 |
| FACTOR 6 |  |
| V43: Unit price comparison | 0.56618 |
| V67: Preparation of a shopping list | 0.54218 |
| V63: Store loyalty | 0.48526 |
| V40: Stockpiling as a response to price-off deal | 0.46472 |
| V65: Comparison of discounted price of a brand with the prices of other brands | 0.46116 |
| V52: Knowledge of pre-discount price | 0.46062 |

### 4.2. PURCHASING PROMOTED PRODUCTS

From this section onwards, the results of the research hypotheses tested will be presented. Due to the fact that an immense number of relationships (850 in total) are investigated, only those which are found to be statistically significant will be discussed and underlined here (See Appendix IV, for a full tabulation of the results of the hypotheses tested).

This section focuses on Hypotheses $1.1-1.43$ which investigate the relationship between purchasing promoted products and several variables related with sales promotions as well as psychographics.

Having recently purchased products on promotion is a variable which seems to be associated with several independent variables. In this study, $41.3 \%$ of the respondents indicate having purchased promoted products whereas the majority of $58.7 \%$ mentions not having purchased such products. In fact these percentages are quite similar to those stated in Yörük's research conducted in 1993. In that study Yörük's results show that $44.3 \%$ of the sample is composed of promotion-users and $55.7 \%$ are non-users.

Table 4.13: Cross-tabulation of Purchasing Promoted Products by Gender


The results indicate that among the females, $46.5 \%$ are purchasers and $53.5 \%$ are non-purchasers whereas among the males the purchasers are only $26.9 \%$ as opposed to non-purchasers who compose $73.1 \%$ of all male respondents. These findings are tabulated in Table 4.13 where the association between purchasing promoted products and gender is statistically supported. The minimum expected frequency being above one and having no cells with expected frequencies that are less than five, the crosstabulation has a chi-square likelihood ratio which is significant at 0.01224 . The relevant phi statistic is 0.17577 , showing the strength of the relationship at a significance level of 0.01386 . The results clearly indicate that females are more likely than males to purchase promoted products.

It is also very important to see the association between having recently purchased promoted products and being deal-prone. Can we consider purchasers of promoted products to be deal-prone? Is it sufficient to know whether someone has made a recent purchase of a promoted product to be able to prediet that person's being dealprone or not? 'The answer lies in the cross tabulation results of deal proneness by purchasing promoted products

Table 4.14: Cross-tabulation of Deal-proneness by Purchasing of Promoted Products

| Count <br> Row Pct <br> Col pct <br> Tot Pct | PURCHASER OF PROMOTED PRODUCTS | NON <br> PURCHASER <br> OF PROM. <br> PROD.S | Row Total |  |
| :---: | :---: | :---: | :---: | :---: |
| DEAL PRONE | 71 50,4 88,8 36,4 | 70 49,6 60,9 35,9 | 141 72,3 |  |
| NON DEAL PRONE | 9 16,7 11,3 4,6 | 45 83,3 39,1 $\therefore 1,1$ | $\begin{array}{r} 54 \\ 27,7 \end{array}$ |  |
| $\begin{gathered} \text { Col } 1 \text { minn } \\ \text { I'olalal } \end{gathered}$ | $\begin{array}{r} 1110 \\ 11,0 \end{array}$ | $\begin{array}{ll} 111 \\ 1,4,0 & 1 \end{array}$ | $\begin{gathered} 111 \\ 1010,11 \end{gathered}$ |  |
| Chi-Square |  | Value | DF | Significance |
| Likelihood Ratio |  | 19,89015 | $5 \quad 1$ | , 00001 |
| Statistic |  | Value |  | Significance |
| Phi |  | , 30647 |  | , 00002 |

Table 4.14 shows that purchasing promoted products and deal-proneness are strongly associated with a Phi value of 0.30647 . The association is valid since the minimum expected frequency requirements are fulfilled and since the significance levels are below 0.1. The $\alpha$ level of the likelihood ratio is 0.00001 and that of Phi is 0.00002 . The Phi value of 0.30647 indicates a strong relationship between the two variables, deal-proneness being dependent. Cell frequencies show that of the purchasers of promoted products about $89 \%$ are deal-prones and only $11 \%$ are non-deal prones, reinforcing the argument that purchasing promoted products is an indication of being deal-prone.

In order to see what impacts purchasing promoted products have on various variables, t -tests for independent samples are also performed. The results show that consumers who have recently purchased promoted products differ from those who have not with respect to deal-proneness, responsiveness to the advertisements of promoted products, purchase of a product because its promotion is liked, and finally unplanned purchase of a frequently purchased brand due to its promotion as depicted in Table 4.15 below:

Table 4.15 : T-test Results for Purchasers of Promoted Products vs NonPurchasers

| VARIABLE | PURCHASER $(\overline{\mathrm{X}})^{*}$ | NON PURCHASER $(\bar{X})^{*}$ |  | 2-Tail Significance |
| :---: | :---: | :---: | :---: | :---: |
| Deal-proneness | 3.1125 | 2.5565 | 5.49 | . 000 |
| Responsiveness to the advertisements of promoted products | 3.0375 | 2.8378 | 2.26 | . 025 |
| Purchase of a product because its promotion is liked | 2.2716 | 2.0973 | 1.68 | . 095 |
| Unplanned purchase of a frequently purchased brand due to its promotion | 2.8000 | 2.6250 | 1.71 | . 090 |

* Scale values: 1= Strongly disagrec, 2= Disagree, 3=Agree, 4= Strongly agree

Table 4.15 verifies that purchasers of promoted products are more deal-prone, more responsive to the ads of promoted products, more likely to purchase a product because they like the promotion as well as to purchase a frequently bought brand due to its promotion without having planned before. These results are significant at $\alpha \leq$ 0.1 .

### 4.3. COUPON / DEAL PRONENESS AND VALUE CONSCIOUSNESS

This section dwells upon Hypotheses 2.1-2.42 investigating coupon proneness, Hypotheses 3.1-3.42 on deal proneness, and finally Hypotheses 4.1-4.42, focusing on value consciousness.

Coupon / Deal proneness and value consciousness are variables which have been included in many academic researches on sales promotions (Thaler 1983; Bawa and Shoemaker 1987; Lichtenstein et. al. 1990; Yörük 1993).There is a slight difference between coupon proneness and deal proneness in the sense that while coupon proneness specifically refers to the increased propensity to respond to a coupon offer, deal proneness is a more general term covering all promotional offers.

In this research, coupon proneness is measured at the nominal scale by asking whether the respondent clips coupons from newspapers or not. Those who currently clip coupons are considered to be coupon prone and those who do not clip coupons are non-prones. The frequency distribution of coupon proneness is given below:

Table 4.16: Frequency distribution for Coupon Proneness

| Value |  |  | Valid | Cum |
| :--- | :---: | :--- | :--- | :--- | :--- |
|  | Frequency | Percent | Percent | Percent |
| COUPON PRONE | 99 | 50,3 | 50,3 | 50,3 |
| NON COUPON PRONE | 98 | 49,7 | 49,7 | 100,0 |
| Total |  |  |  |  |

According to the classification, coupon prones and non-prones are almost equal in the sample with coupon prones constituting $50.3 \%$ of the sample and non-prones making up $49.3 \%$ of the sample.

On the other hand, deal-proneness is nominalized by a recoding procedure. At the interval scale respondents level of agreement is measured on a 4-point scale with the statement "I like buying promoted products". Then those who "strongly agree" and "agree" with this statement are classified as deal prones and those who "strongly disagree" and "disagree" with the statement are classified as non-deal prones. The new variable is called: DEALPRONE. The frequency distribution for deal proneness is given in the table below:

Table 4.17: Frequency Distribution for Deal Proneness


In comparison to coupon clipping, the frequency distribution for deal proneness indicates that a larger portion of the sample is classified as deal-prone. Table 4.17 shows that as high as $72.3 \%$ of the sample are deal prone consumers and the remaining $27.7 \%$ are non deal prones. The distributions in Table 4.17 has important
implications. The percentage of people who have recently purchased promoted products is $41.1 \%$ and those who have not recently made such purchases is $58.9 \%$. In this respect it can be argued that some portion of those who have not recently made promotional purchases are potentially deal prone and that the reason for their not purchasing promoted products during their recent shopping is not associated with having negative attitudes and perceptions about sales promotions.

Another finding emerges from the comparison of the frequency distributions of coupon proneness and deal proneness and that is, the percentage of deal prones is higher than that of coupon prones in the sample. This is in parallel with the initial proposition that compared to coupon proneness, deal proneness is a broader concept. While coupon proneness is related to coupon promotions only, deal proneness covers all promotions and measures the increased propensity to respond to promotions in general, and not necessarily because they are in coupon form.

Before moving on to t-test analyses, it would be useful to look at the association between coupon proneness and deal proneness. The cross-tabulation of deal proneness by coupon clipping shows that the two variables are significantly correlated. The cross-tabulation can be interpreted meaningfully since the minimum expected frequency value is higher than 1 and since there are no cells with expected frequencies less than 5. In Table 4.18, the chi-square likelihood ratio is significant at 0.04874 , providing enough reason to reject the hypothesis that the two variables are independent. The association between the two variables is given by the phi coefficient which is 0.14070 in this case. This value is significant at 0.04944 . Therefore, it can be
confidently said that deal-proneness and coupon proneness are positively and significantly correlated.

Table 4.18: Cross-tabulation of Deal Proneness by Coupon Clipping


Interesting observations can be made by examining cell frequencies in Table 4.18. While $78.6 \%$ of the coupon clippers are deal prone, only $21.4 \%$ are non-deal-prone. But still, as high as $66 \%$ of the non-coupon-clippers are also deal-prone, and only $34 \%$ of the non-coupon-clippers are non-deal-prone as well. Coming to row percentages, the split between coupon clippers and non-coupon clippers among dealprones is $54.6 \%$ to $45.4 \%$. Among non-deal prones; however, $38.9 \%$ are coupon clippers and $61.1 \%$ are non-coupon clippers. While coupon clippers are highly likely
to be deal-prone, the opposite association is not that strong: deal prones are not distinctively likely to be coupon prone. On the other hand, while non-deal prones are likely to be non-coupon prones, being non-coupon prone does not mean a person is not deal prone, meaning while a person may not necessarily be attracted to coupon promotions, but to other forms of sales promotions.

After the examination of the association between coupon proneness and value consciousness, coupon proneness and deal proneness are separately tested with all interval scale variables related with attitudes, views, behaviors of consumers regarding sales promotions as well as psychographic variables . T-test for independent samples is performed to uncover any statistically significant relationship.

Table 4.19: T-test Results for Coupon Clippers versus Non-Clippers

| VARIABLE | CLIPPER $(\bar{X})^{*}$ | NON CLIPPER $(\overline{\mathrm{X}})^{*}$ |  | 2-Tail Significance |
| :---: | :---: | :---: | :---: | :---: |
| Purchasing the single brand on promotion | 2.4271 | 2.1837 | 2.32 | . 021 |
| Responsiveness to the advertisements of promoted products | 3.0206 | 2.8191 | 2.16 | . 032 |
| Purchase of a brand only when promoted | 2.3402 | 2.0102 | 3.22 | . 002 |
| Choosing a promoted brand among other promoted brands because the promotion is liked better | 2.7245 | 2.5102 | 1.97 | . 050 |

* Scale values: $1=$ Strongly disagree, $2=$ Disagree, $3=$ Agree, $4=$ Strongly agree

Table 4.19 above shows that in comparison to non-clippers, coupon clippers, in other words, coupon prones are more likely to purchase the single brand on promotion, to
respond to the advertisements of promoted products, to purchase a brand only when it is promoted and to choose a promoted brand among other promoted brands because they like its promotion better.

Reverting back to the statistical analyses regarding deal proneness, being a bivariate nominal variable, t-tests for independent samples are performed between deal proneness and the variables regarding sales promotions phenomena.

Table 4.20: T-test Results for Deal Prones versus Non-Deal Prones

| VARIABLE | DEAL PRONE $(\widehat{X})$ | NON DEAL PRONE $(\bar{X})^{\star}$ | t-value | 2-Tail <br> Significance |
| :---: | :---: | :---: | :---: | :---: |
| Stockpiling | 2.8369 | 2.5370 | 2.03 | . 046 |
| Attention to promoted products | 2.6403 | 2.1698 | 3.72 | . 000 |
| Responsiveness to the advertisements of promoted products | 3.0072 | 2.6667 | 3.13 | . 002 |
| Impact of satisfaction with promoted product on repeat purchase | 3.0357 | 2.7736 | 2.26 | . 026 |
| Evaluation of purchasing promoted products | 2.6691 | 2.0926 | 5.23 | . 000 |
| Knowledge of pre discount price | 3.0000 | 2.7736 | 1.94 | . 056 |
| Purchase of a brand only when promoted | 2.2518 | 1.9444 | 2.82 | . 006 |
| Brand Substitution as a Response to Availability of a Lower Priced Brand | 2.9143 | 2.6481 | 2.13 | . 036 |
| Attitudes towards sales promotions | 2.8929 | 2.4444 | 3.56 | . 001 |

* Scale values: $1=$ Strongly disagree, $2=$ Disagree, $3=$ Agree, $4=$ Strongly agree

As can be inspected from Table 4.20, deal prones seem to differ from non-deal prones with respect to various variables. Deal prones are more likely to stockpile when their
frequently purchased brand offers a price discount. Deal prones pay more attention to promoted products during shopping, and they are more responsive to the advertisements of promoted products. If a first-time bought promoted product is liked, deal prones are more likely than non-prones to switch from their favorite brand to the new brand. Their repeat purchase likelihood for this new brand is more compared to the non-deal prones. Deal prones are also more likely to evaluate purchasing promoted products positively, to know the pre-discount price of their favorite brand, and to purchase a brand only when it is promoted. As opposed to non-deal prones, deal prone consumers have an increased propensity to switch from their frequently purchased brands to a different brand of same quality just because the other brand is cheaper. Finally, deal prones have more positive attitudes towards sales promotions in comparison to non deal prones.

Before moving on to value-consciousness, a discriminant analysis is carried out to distinguish between deal-prones and non-deal-prones which are expected to differ on the six factors derived as a result of the factor analysis performed earlier in this chapter. The dependent variable in the discriminant analysis will be DEALPRONE with two categories: Deal prone and Non-Deal Prone. There will be six discriminating variables: Factor 1 ( Promotion-proneness ), Factor 2 ( Promotion evaluations), Factor 3 ( Brand loyalty ), Factor 4 ( Brand switching), Factor 5 ( Value consciousness ), Factor 6 ( Being a "Smart Shopper"). These factors are actually the regression factor scores that are obtained as a result of the factor analysis performed earlier in this chapter.

Normally, there are 141 deal prones and 54 non- deal prones in the sample totalling to 195 with 2 missing cases. In the discriminant analysis, however, 46 of the 197 cases are excluded from the analysis leaving 151 cases, out of which 115 are deal prones and 36 are non-deal prones. The null hypothesis is that the group centroids are the same for the two groups. The analysis results yields a centroid of 0.43924 for deal prones and -1.40314 for non deal prones (See Appendix VI for complete outputs). The difference between the two centroids will be tested with Wilks' Lambda. The lambda score is 0.6155 and the relevant chi square value is 70.874 at 0.000 significance level and with 6 degrees of freedom, indicating that the null hypothesis must be rejected. Therefore, the group centroids are found to be unequal. The Wilks' Lambda of 0.6155 also denotes that $61.55 \%$ of the variance is unexplained.

The Canonical Correlation of the discriminant function is 0.6200 indicating a highcorrelation between the discriminant function and the two groups. The Canonical Correlation squared, 0.3844 , is the portion of the variance in the discriminant function explained by the differences between deal prones and non prones.

The correletions between canonical discriminant function and discriminating variables are of great analytic importance. Each coefficient represents the relative contribution of its associated variable to that function. Factor 1 makes the greatest contribution, followed by factor 2 , factor 5 , factor 4 , and factor 6 . Factor 3 seems to make a minimal contribution.

Table 4.21: Discriminant Analysis / Structure Matrix


The discriminant loadings in the structure matrix given in Table 4.21 show that factor 1 , factor 2 , factor 5 , factor 4 , factor 6 are highly correlated with the discriminant function.

The unstandardized canonical discriminant function coefficients provide the necessarydata to form the discriminant equation:
$\mathrm{Z}=-0.059+0.835$ (Promotion Proneness ) +0.760 (Promotion Evaluations) + 0.372 (Value Consciousness) +0.317 (Brand Switching) +0.253 (Being a "Smart Shopper") +0.048 (Brand Loyalty)

This equation shows that in discriminating between deal prones and non-deal prones, variable Promotion Proneness (Factor 1) is the most important one. Promotion Evaluations (Factor 2) also has a strong effect. Brand Switching (Factor 4), Value Consciousness (Factor 5) and Being a Smart Shopper (Factor 6) also contribute to the function. Brand Loyalty (Factor 3) does not seem to contribute very much to the function. In the light of the discriminant analysis carried out, deal prones are more
likely to have more favorable evaluations about and respond more positively to sales promotions. Deal prones are also more likely to indulge in brand switching. Interestingly, deal prones are found more likely to be value-conscious than non-dealprones. Regarding "smart shopping" parameters such as unit price comparison, knowledge of pre-discount price and preparation of a shopping list, deal prones also score better than non-deal-prones.

The hit ratio for the non-deal prones is $75.0 \%$. Knowing that the percentage of nondeal prones is only $27.7 \%$, it can be safely said that the hit ratio does not occur by chance. The hit ratio for deal prones is $80.9 \%$. In comparison to $72.3 \%$ which is the percentage of deal prones in the sample, it can again be safely argued that the hit ratio does not occur by chance. The overall discriminatory power of the function is $79.47 \%^{-}$ meaning that if the promotion proneness, promotion evaluations, value consciousness, being a "smart shopper", and brand loyalty scores are inserted in the equation, a consumer's being deal prone or not can be predicted with $79.47 \%$ accuracy.

Moving on to value-consciousness, same method as before is used to convert it into a bivariate nominal variable. Those who strongly agree and agree with the statement "A product's quality is as important to me as its price" are considered to be value conscious and those who strongly disagree and disagree with the statement are considered to be non-value conscious. However the results of the classification indicate that the split between the two groups within the sample is highly disproportionate. While the value-conscious constitute only $2.6 \%$ of the sample, $97.4 \%$ are classified to be non-value-conscious. Under these circumstances, value
consciousness seems to be almost a constant and therefore t-test for independent samples analyses cannot be performed. Therefore Hypotheses 4.1-4.42 are rendered to be not-testable.

### 4.4. BRAND LOYALTY

Hypotheses 5.1-5.43 are constructed to measure the association between brand loyalty and various sales promotion phenomena, the results of which will be discussed in this section.

Brand loyalty is an important variable in sales promotions studies. Those consumers who are brand loyal are expected to be less likely to respond to the sales promotions offered by brands other than their favorite brands and to switch to other brands due to the promotions offered by those brands. In the sample, $25.4 \%$ are classified to be brand loyals and the remaining $74.6 \%$ are classified as non-brand loyals as can be seen in the table below:

Table 4.22: Frequency distribution for Brand Loyalty

| Value | Frequency | Percent | Percent | Percent |
| :--- | :---: | :---: | :---: | :---: |
| Non Brand Loyal | 50 | 25,4 | 25,4 | 25,4 |
| Brand-loyal | 147 | 74,6 | 74,6 | 100,0 |
|  |  |  |  |  |
| Total | 197 | 100,0 | 100,0 |  |

As a nominal variable, brand loyalty is operationalized by a recoding procedure. Those who "strongly agree" and "agree" with the statement "In most product categories, there are certain brands for which I have a definite preference and I only purchase these certain brands" are brand loyals and those who "strongly disagree" and "disagree" with this statement are non-loyals.

Table 4.23: T-test Results for Brand Loyals versus Non-Brand Loyals

| VARLABLE | BRAND <br> LOVAL <br> $\left.\overline{X_{1}}\right)^{*}$ | $\begin{aligned} & \text { NON BRAND } \\ & \text { LOYAL } \\ & \overline{(\bar{X})^{*}} \end{aligned}$ | t-value | 2-Tail <br> Significance |
| :---: | :---: | :---: | :---: | :---: |
| Evaluation of purchasing promoted products | 2.5862 | 2.2553 | -2.94 | . 004 |
| Purchase of a brand only when promoted | 2.2260 | 2.0204 | -2.08 | . 039 |
| Store Loyalty | 2.9726 | 2.6667 | -2.90 | . 005 |
| Marginal Utility | 3.1034 | 2.8571 | -1.80 | . 076 |
| Conservatism | 2.6370 | 2.3061 | -2.69 | . 009 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

Contrary to expectations, brand loyals are found to be more likely to evaluate purchasing promoted products positively and to purchase a brand only when promoted as shown in Table 4.23. Interestingly, those who are brand loyal are also likely to be store loyal when compared with non-brand loyals. In terms of marginal utility, more specifically buying only the required amount of a specific product despite an attractive discount in its price, brand loyals tend to be more likely to be more concerned about marginal utility in comparison to non-brand loyals. Finally, brand loyals are found to be more conservative than non brand loyals in their shoppings in the sense that they are more unlikely to purchase new products.

The association between brand loyalty and deal-proneness is one which has consistently been examined by researchers. Findings of prior studies suggest that those who are not likely to react to a promotion tend to be brand loyal (Brown, 1974). Webster (1965) confirms the existence of an inverse relationship between a family's deal proneness index and brand loyalty. In order to verify this negative influence of brand loyalty on deal-proneness, a deal-proneness index is created using 7 variables: liking to purchase promoted products (deal-proneness), paying attention to promoted products, purchasing the single brand on promotion, having "smart shopper" feelings when purchasing promoted products, unplanned purchasing of a product because its promotion is liked, trial of an unfamiliar brand due to its promotion, and switching do other brands when a brand stops promotions. Then, the correlation between dealproneness index and brand loyalty is examined. The correlation results suggest that with an $r=-0.1586$ significant at $\alpha=0.038$, there is a statistically significant inverse association between deal-proneness and brand loyalty. This finding is in line with Webster's (1965) findings and is also supported by more recent research, i.e. Bawa and Shoemaker's 1987 research results suggesting that coupon-prone households tend to be less brand loyal and less store loyal than the non-coupon prone households. Indeed the association between deal-proneness index and switching stores due to the non-availability of a frequently purchased brand on promotion is positive and strong with $\mathrm{r}=0.2505$ at $\alpha=0.001$. This association indicates that deal-prone consumers are more likely to switch stores if their favorite brand's promotion is not available and therefore they are less store loyal.

### 4.5. CONSUMER CHARACTERISTICS

### 4.5.1. Demographics

Demographics are the core explanatory factors in sales promotions research like in many other social sciences research. The results of Hypotheses 6-49, measuring the association between all sales promotions-related variables and demographics: gender, marital status, having children, education, income, occupation / working status, household size, and modes of transportation to the place of shopping will be analyzed in this section and the associations which are statistically significant will be discussed.

### 4.5.1.1 Gender

Gender is one of the most important demographic variables that is continuously used by researchers in an attempt to explain various dependent variables. In this research, females and males are compared in terms of various variables related with sales promotions as well as shopping behaviour. T-test for independent samples is conducted with the aim of shedding light on significant variations between males and females along several parameters. The research results indicate that females differ from males in terms of purchasing the only promoted brand within the same product category, responsiveness to the advertisements of promoted brands, evaluation of frequently promoted brands, preparation of a shopping list, and shopping competitiveness. The t-test results are summarized in Table 4.24.

Table 4.24: T-test results for Female versus Male Consumers

| VARIABLE NAME | $\begin{gathered} \text { FEMALES } \\ (\mathbb{X})^{*} \end{gathered}$ | $\begin{aligned} & \text { MALES } \\ & (\bar{X})^{*} \end{aligned}$ | tvalue | 2-Tail Significance |
| :---: | :---: | :---: | :---: | :---: |
| Purchasing the Single Brand on Promotion | 2.3803 | 2.0784 | 2.78 | 0.006 |
| Responsiveness to the Advertisements of Promoted Products | 3.0071 | 2.6800 | 3.07 | 0.003 |
| Evaluation of Promoted Products | 2.7273 | 2.9804 | -2.21 | 0.030 |
| Preparation of a Shopping List | 2.8112 | 2.4902 | 2.11 | 0.038 |
| Shopping Competitiveness | 2.6383 | 2.2549 | 3.47 | 0.001 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

When t-test results are examined, it is observed that with regard to the likelihood of purchasing the only promoted brand in a given product category, females have a mean score of 2.3803 as opposed to that of males which is 2.0784 . This indicates that females are more prone to buy the promoted brand among other brands in a category if that is the only brand on promotion. Similarly, having a mean score of 3.0071 in comparison to the 2.6800 score of males, females are more likely to go and examine a particular brand if they are exposed to its advertisement which publicizes that the brand is on promotion. If a brand is frequently on promotion, both males and females will evaluate that brand negatively; however males are more likely to evaluate that brand negatively to a greater extent in comparison to females (mean score of males is 2.9804 versus 2.7273 ). In terms of preparation of a shopping list and shopping competitiveness females once again outscore males. Having mean scores of 2.8112 and 2.6383 respectively females are more likely to prepare a shopping list and
perceive themselves as better shoppers than others as opposed to males with respective means of 2.4902 and 2.2549 .

All of the differences underlined in this study are significant at $\alpha \leq 0.10$. When other dependent variables are tested, no significant difference is observed between males and females. The results of the research are in line with the findings of Zeithaml (1985) which reveal that males score less on a scale including planning items such as use of shopping lists, budgeting and newspaper advertising. The study carried out by Zeithaml support the findings of this research also in the sense that Zeithaml's findings show males not seeming to respond as well as females to conventional promotion such as newspaper advertising, coupons, price promotions.

### 4.5.1.2. Age

Another variable used to explain behavior and attitudes related with sales promotions is age. Originally there are 6 age groups included in the study; however, for the purposes of more meaningful statistical analyses, age is recoded to arrive at the new variable AGE which has three age groups: the younger ( aged below 30), the middle aged (aged between 31-50), and the elderly ( 51 and older). In order to assess the variations between these three groups with respect to the dependent variables in the study, one-way analysis of variance is performed. The results of one-way ANOVA indicate the existence of numerous significant variations between the three age groups.

All variables are included in the analysis of variance with respect to age and filtered through a set of parameters fixed at certain levels: F probability $\leq 0.10$; Levene Test for Homogeneity of Variances $\alpha \geq 0.10$; Sheffé Multiple Range Test $\quad \alpha \leq 0.05$. All sets of variances between three groups for each variable meeting these parameters are considered statistically significant. Although Levene Test for Homogeneity of Variances requires that $\alpha \geq 0.10$, those variables which do not meet this criterion are nevertheless included in the analyses. The interpretations and evaluations for such variables should be made with caution since the group variances are not equal. Within this framework, one-way ANOVA results for age are tabulated in Table 4.25:

Table 4.25: ANOVA Results for Age

| VARIABLE | $\begin{aligned} & \text { AGE 30 } \\ & \text { ABD } \\ & \text { BELOW } \\ & \left(X{ }^{*}\right. \end{aligned}$ | $\begin{gathered} \text { AGE } \\ \text { BW } 31- \\ 50 . \\ \frac{1}{x}, * \end{gathered}$ | $\begin{aligned} & \text { AGE } 51 \\ & \text { AND, } \\ & \text { BELOW } \\ & (X,)^{*} \end{aligned}$ | F-Ratio | F- <br> Probability | Levene <br> Test for Homoge neity | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preference for "Everyday Low Pricing" | 2.8333 | 3.0323 | 3.4074 | 3.8259 | 0.0240 | 0.260 | Groups 3\&1 |
| Comparison of Unit Prices | 2.9000 | 3.2000 | 3.3571 | 4.4909 | 0.0128 | 0.328 | Groups 2\&1 <br> Groups 3\&1 |
| Knowledge of PreDiscount Price | 2.9667 | 2.8632 | 3.2593 | 4.2913 | 0.0154 | 0.067 | Groups 3\&2 |
| Negative Evaluation of Promoted Brands | 2.8621 | 2.6632 | 3.1429 | 4.5758 | 0.0118 | 0.232 | Groups 3\&2 |
| Impulse Buying | 2.6429 | 2.4000 | 1.9286 | 7.9147 | 0.0005 | 0.027 | Groups 3\&1 |
| Negative Attitudes Towards Promotions | 2.0690 | 2.0543 | 2.7037 | 7.7465 | 0.0006 | 0.069 | Groups 3\&1 Groups 3\&2 |
| Unplanned Purchase of a Frequently purchased Brand due to its Promotion | 2.7333 | 2.8105 | 2.4231 | 3.2037 | 0.0434 | 0.002 | Groups 2\&3 |
| Liking Variety | 3.3103 | 3.3684 | 2.9630 | 3.7172 | 0.0266 | 0.972 | Groups 2\&3 |
| Extravagance | 2.7000 | 2.6809 | 2.1786 | 3.7481 | 0.0258 | 0.115 | Groups 2\&3 Groups 1\&3 |
| Conservatism | 2.2069 | 2.5417 | 2.9286 | 5.9026 | 0.0034 | 0.172 | Groups $2 \& 1$ <br> Groups 3\&1 <br> Groups $3 \& 2$ |
| Variety-Seeking | 2.6667 | 2.7872 | 2.3704 | 3.9454 | 0.0214 | 0.282 | Groups 2\&3 |
| Liberalism | 3.1333 | 2.9684 | 2.6071 | 5.1101 | 0.0071 | 0.005 | Groups 1\&3 Groups 2\&3 |

* Scale values: 1= Strongly disagree, $2=$ Disagree, 3=Agree, 4= Strongly agree

With regard to the preference for "Everyday Low Pricing" versus occasional sales promotions, the elderly differ from the younger group in the sense that the elderly much more strongly favor "Everyday Low Pricing" over occasional promotions when compared to the youngsters. With a mean score of 2.8333 in comparison to a score of 3.4074, the younger group feel less strongly in terms of preference for "Everyday Low Pricing". It would be reasonable to arrive at the assumption that the younger feel more positive about sales promotions as opposed to the elderly. Similarly, in terms of comparison of unit prices within the same product category, as opposed to the youngsters $(\mathrm{x}=2.900$ ), the elderly are more likely to make unit price comparisons ( x $=3.3571$ ). This finding implies that the elderly are more price conscious shoppers when compared with the young generation shoppers. This finding is in parallel with a 1985 study conducted by Zeithaml revealing that older shoppers plan more for shopping, tend use information more, economize more than younger shoppers, and are influenced more by conventional promotions than any other segment.

When it comes to knowing the pre-discount price of a brand, the elderly score better than the middle-aged (Levene $\alpha \leq 0.1$ ). This can again be interpreted as the elderly being a more price conscious consumer group. However, the elderly are more suspicious of frequently promoted brands in comparison to the middle-aged. Indeed, they are found to have more negative evaluations about frequently promoted products in comparison to the middle-aged (Levene $\alpha \leq 0.1$ ). Moreover, the elderly are less likely to do impulse buying because the results show that on the likelihood of impulse purchasing of products placed near the cash-point, the elderly are less impulsive with a mean of 1.9286 when compared to the middle aged $(x=2.400)$ and the younger
shoppers $(x=2.6429)$. Indeed, because their score is right below 2.0000 , it would even not be wrong to say that the elderly are not tempted to make impulse purchases(Levene $\alpha \leq 0.1$ ). The mean scores clearly shows that as age increases the likelihood of impulse purchasing decreases. Similarly, elderly are less likely than the middle-aged to spontaneously buy a frequently purchased brand just because it is being promoted at that time(Levene $\alpha \leq 0.1$ ).

Interestingly, the elderly shoppers significantly differ from the middle-aged and younger shoppers in terms of preference for products to be sold with no promotion at all. While the younger and middle-aged groups do not seem to differ ( $x=2.0690$ and 2.0543 ), the elderly prefer more strongly $(x=2.7037)$ that products are sold without promotions. The results of the analysis show that the elderly shoppers are more conservative (Levene $\alpha \leq 0.1$ ), less variety-seeking, less extravagant than the middle-aged and younger shoppers.

### 4.5.1.3. Marital Status

Past research shows that married consumers differ from single consumers with respect to shopping behavior and response to promotions as well as various psychographic aspects. For the purposes of the statistical analyses, marital status is modified by combining the widowed and divorced categories to create a new variable called MARITAL. This new variable has three categories: Single, Married, Widowed/Divorced. Again, with the same principles as before one-way analyses of variance will be performed to distinguish between the three groups in terms of various
habits, attitudes, evaluations related with promotions as well as personality characteristics. The one-way ANOVA results can be inspected in the table below:

Table 4.26: ANOVA Results for Marital Status

| VARLABLEL | $\begin{aligned} & \text { SINGLE } \\ & \bar{X}) \end{aligned}$ | $\begin{gathered} \text { MARRIED } \\ (\bar{X}) \end{gathered}$ | DIVORCED/ <br> WIDOWED <br> ( $\bar{X}$ ) |  | $\stackrel{\text { Febabi }}{\text { Proba }}$ <br> lity | Levene <br> Test for <br> Homoge neity | Scheffe <br> Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preference for "Everyday Low Pricing" | 2.9397 | 3.3538 | 3.7000 | 8.4071 | 0.0003 | 0.282 | Groups 2\&1 Groups 3\&1 |
| Impulse Buying | 2.4138 | 2.1493 | 1.8000 | 5.1157 | 0.0069 | 0.221 | Groups 1\&3 |
| Negative <br> Attitudes <br> Towards <br> Promotions | 2.0885 | 2.5294 | 2.6000 | 6.8689 | 0.0013 | 0.209 | Groups 2\&1 |
| Unplanned <br> Purchase of a <br> Frequently purchased Brand due to its Promotion | 2.8547 | 2.4462 | 2.5000 | 7.8362 | 0.0005 | 0.000 | Groups 1\&2 |
| Liking Variety | 3.3333 | 2.9242 | 3.6000 | 9.0684 | 0.0002 | 0.733 | Groups 1\&2 <br> Groups 3\&2 |
| Planning | 2.5431 | 2.8413 | 3.4000 | 7.6242 | 0.0007 | 0.025 | Groups 2\&1 <br> Groups 3\&1 |
| Extravagance | 2.7179 | 2.2121 | 1.7000 | 11.7488 | 0.0000 | 0.035 | Groups 1\&2 <br> Groups 1\&3 |
| Ability to Plan Ahead | 2.6897 | 2.7077 | 3.3000 | 3.5303 | 0.0313 | 0.902 | Groups 3\&1 <br> Groups 3\&2 |
| Budgeting | 2.6410 | 2.8636 | 3.4000 | 4.4755 | 0.0126 | 0.018 | Groups 3\&1 |
| Liberalism | 3.0000 | 2.6866 | 2.7000 | 4.6987 | 0.0102 | 0.002 | Groups 1\&2 |
| Impulsiveness | 2.8898 | 2.4776 | 2.8000 | 5.2310 | 0.0061 | 0.152 | Groups 1\&2 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

With regard to preference for "Everyday Low Pricing", single consumers significantly differ from the married and widowed/divorced consumers. Married and widowed/divorced consumers seem to be more in favor of "Everyday Low Pricing"
when compared with single consumers. Single consumers also differ from widowed/divorced consumers in terms of impulse-buying. With a mean score of 1.8000 the widowed/divorced are more unlikely to spontaneously purchase products that are placed near the cash-point when compared with single consumers whose mean score is 2.4138 .

In terms of preference for products to be sold with no promotions at all, being single or married makes a difference. Single consumers' level of preference for a promotionfree market environment is less than that of males and this finding is consistent with the previous finding that single shoppers are less in favor of "Everyday Low Pricing" versus sales promotions. When spontaneously buying a frequently purchased brand just because it is being promoted at that time, the single shopper is more prone to do so as opposed to the married shopper (Levene $\alpha \leq 0.1$ ).

ANOVA results also show that marital status can be associated with psychographic variables such as variety seeking, planning (Levene $\alpha \leq 0.1$ ), extravagance (Levene $\alpha$ $\leq 0.1$ ), liberalism (Levene $\alpha \leq 0.1$ ), budgeting (Levene $\alpha \leq 0.1$ ), impulsiveness. Single and widowed/divorced consumers are more variety seeking than the married. In terms of planning, married consumers plan ahead more than the single consumers, and widowed/divorced consumers plan ahead even more than the married consumers. That is to say, the single consumers do the least planning ahead. Moreover, the results also show that single consumers are more extravagant than the married and the widowed/divorced- meaning, they spend money without thinking about it. Again, single consumers are not good at budgeting as the widowed / divorced. While single consumer do least budgeting, widowed / divorced shoppers budget most. The married
and the single also differ significantly on liberalism- the single consumers are more likely to try out new things then the married consumers. When it comes to impulsiveness, the picture is similar-single consumers are significantly more impulsive than the married. The results of this research shows extreme consistency when compared with the results of Zeithaml's 1985 study. There, Zeithaml finds that marital status shows a significant effect on extent of planning, extent of economizing, extent of information usage, and importance of shopping. In parallel with the findings of this study, Zeithaml reports that married respondents-whether male or female- plan, economize, and use information significantly more than single shoppers.

### 4.5.1.4. Having Children

It is interesting to see how consumers with children differ with consumer who do not have children. In order to see in what aspects they differ, $t$-test for independent samples is conducted with : consumers with children versus consumers without children.

Table 4.27 : T-test results for Consumers with Children versus Consumers without Children

| VARIABLE NAME | WITH NO CHILDREN $(\bar{X})^{*}$ | WITH CHILDREN $(\overline{\mathrm{X}})^{*}$ | t-value | 2-Tail Significance |
| :---: | :---: | :---: | :---: | :---: |
| Brand Loyalty | 2.7000 | 3.0000 | -2.70 | 0.008 |
| Impulse Buying | 2.4365 | 2.0152 | 3.80 | 0.000 |
| Brand Substitution as a <br> Response to Availability of a Lower Priced Brand | 2.9219 | 2.6866 | 2.00 | 0.048 |
| Unplanned Purchase of a Frequently purchased Brand due to its Promotion | 2.7969 | 2.4921 | 2.63 | 0.010 |
| Ability to Plan Ahead | 2.5680 | 2.9206 | -2.99 | 0.003 |
| Extravagance | 2.6693 | 2.1385 | 4.22 | 0.000 |
| Budgeting | 2.6693 | 2.9385 | -2.17 | 0.032 |
| Liberalism | 3.0078 | 2.6212 | 3.48 | 0.001 |
| Impulsiveness | 2.8828 | 2.5000 | 2.99 | 0.003 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

Consumers with children are found to be significantly more brand loyal than consumers without children. The table also reveals that people with children are less likely to be dragged into impulse buying when compared to people with no children. Consistent with the finding that consumers with children are more brand loyal, they are also found to be less likely to switch from their frequently purchased brands to a different brand of the same quality just because the other brand is cheaper. On the other hand, consumers with no children are more likely to make an unplanned purchase of a favorite brand due to its promotion.

Regarding psychographic variables, consumers with children also differ from consumers without children. Consumers with children are more able to plan ahead, less extravagant, more likely to do budgeting, less likely try new things therefore less liberal, and less impulsive than consumers without children. Within the group of consumers who have children, those who have children aged below 6 , are also found to be less extravagant than those who do not have a child aged below 6 .

### 4.5.1.5. Education

Education is an important demographic parameter which is widely employed as an independent variable to explain various social phenomena. The findings on the association between coupon proneness and education is diverse. In this study, education is recoded into a new variable EDUCAT which has three levels: Low (Literates, primary and secondary school graduates), Medium (High school graduates), and High ( University degree or above). Education is cross-tabulated with Coupon Clipping from newspapers and the results are listed in Table 4.28

The results of Table 4.28 are significant at $x^{2}=8.45616$ with 2 degrees of freedom and $\alpha=0.01458$. The minimum expected frequency is above one and there exists no cells with expected frequencies that are less than five. That is to say, coupon clipping from newspapers is statistically significantly associated with education level. The strength of this association is given by the Cramer's $V$ value of 0.21029 significant at $\alpha=0.01531$. Therefore it can be safely argued that there is a considerably strong relationship between coupon clipping and education. The Lambda value of 0.19149 with coupon clipping as dependent reveals that by knowing the education level of the
consumer, the error in prediction of whether a consumer is a coupon-clipper or not can be reduced by about $20 \%$.

Table 4.28 : Cross-Tabulation of Coupon Clipping from Newspapers by Education Level


A closer inspection of the table shows that, of the whole consumers, $49.7 \%$ of them are clipping coupons from newspapers, while the remaining $50.3 \%$ are non-clippers. Within the low education group, $63.6 \%$ are clippers. However, this figure drops to $56.6 \%$ and down to $35.4 \%$ for the medium and high education groups, respectively.

The percentage of non-clippers within the low educated group is $36.4 \%$, the medium educated is $43.4 \%$ and high-educated is $64.6 \%$. These figures assert that there is a reverse relationship between coupon clipping and education: that is, as the level of education increases, the likelihood of coupon clipping from newspapers will decrease. More educated consumers are less likely to clip coupons from newspapers and implicitly this means more educated people are less coupon-prone.

Some researchers like Levedahl (1988) finds positive associations between coupon redemption and education and states that coupon redeemers have more education than non-redeemers. Levedahl explains this association by arguing that households with more education are more efficient shoppers- they are better able to locate, sort, organize, and cash in coupons and to take advantage of the discount that a coupon offers. On the other hand, Mittal (1994) establishes an integrated framework for relating diverse consumer characteristics to supermarket coupon redemption. In this mediational causal model, education and coupon redemption is mediated by busyness, reduced comparison shopping, lower perceived economic benefits, and less favorable attitudes. In this model, more educated consumers are more busy and therefore have less time to do comparison shopping, resulting in lower perceived economic benefits and less favorable attitudes. In the end they indulge in lower coupon redemption. This model is also helpful in explaining the results of this research. Since educated consumers are more likely to have less time and effort to clip coupons from the newspapers, they will devise less favorable attitudes towards coupon clipping and therefore redeem less coupons collected from newspapers.

### 4.5.1.6. Income

Income is another important demographic variable which is an indispensable part of social sciences researches. In this study, the 10 levels of household income included in the questionnaire is merged to arrive at three levels of income: Low (Below 50 million TL), Medium (Between 50-150 million TL) and High (Above 150 million TL). This new variable INCOME is tested through cross-tabulation and various ANOVA analyses.

In the cross-tabulation analysis, INCOME is used as an independent variable to explain Coupon Clipping from Newspapers like in the case of education. The association between Coupon Clipping and INCOME is tabulated in table 4.29. Statistically significant conclusions can be drawn from Table 4.29 because the $\mathrm{x}^{2}$ value is 7.07577 with 2 degrees of freedom and $\alpha=0.02907$. Moreover, the minimum expected frequency is above one and there are no cells with expected frequencies that are less than five. The inspection of the table shows that coupon clipping from newspapers is statistically significantly associated with income level. The strength of this association is given by the relevant Cramer's V value of 0.19274 significant at $\alpha=0.03101$. Therefore it can be stated that there is a considerably strong relationship between coupon clipping and education. The Lambda value of 0.12222 with coupon clipping as dependent means that by knowing the income level of the consumer, the error in prediction of whether a consumer is a coupon-clipper or not can be reduced by about $12 \%$.

Table 4.29: Cross-Tabulation of Coupon Clipping from Newspapers by Income Level


When the table is analyzed cell by cell, it can be seen within the low income group, $31.8 \%$ are clippers. However, this figure goes up to $55.9 \%$ and $48.0 \%$ for the medium and high income groups, respectively. The percentage of non-clippers within the low income group is $68.2 \%$, the medium income is $44.1 \%$ and high-educated is $52.0 \%$. These figures assert that there is a positive relationship between coupon clipping and income: that is, as the level of income increases, the likelihood of coupon
clipping from newspapers will increase. Consumers with lower income are less likely to clip coupons from newspapers when compared with medium and high income groups and implicitly this means high income groups are more coupon-prone. This time the findings are opposite of Mittal's findings who relate higher income with reduced coupon redemption. However, the findings of Levedahl (1988) and Bawa and Shoemaker (1989) suggest that the greater the household's income, the more coupons it is likely to redeem. A similar justification can be made for coupon clipping from newspapers. Those newspapers that offer coupons are more expensive than the others and require continuous daily purchase. Lower income groups cannot afford to buy the expensive newspapers regularly even though they offer coupons.

Before going into one-way ANOVA analysis it is also useful to look at the association between newspaper readership and income as shown in Table 4.30. Table 4.30 can be analyzed safely since the minimum expected frequency criterion of more than 1 is fulfilled and since there are no cells with expected frequencies less than 5 . The existence of a linear association between number of newspapers read and income is asserted by the chi-square and Mantel Haenszel values which are significant at $\alpha \leq$ 0.1 . The strength of this association is given by all relevant ordinal level coefficients such as Kendall's Tau, Gamma, and Somer's D. These coefficients show that there exists strong and significant associations between a respondent's income and the number of newspapers the respondent reads daily. As the level of income increases, the number of newspapers read daily will also increase and this means that a person's level of exposure to print media is associated with that person's level of income.

Table 4.30: Cross-tabulation of Newspaper Readership by Income


Coming to the one-way ANOVA analyses, the results are listed in Table 4.31. The ANOVA results underline the differences between different income groups with regard to value consciousness, preference for "Everyday Low Pricing", knowing the pre-discount price of a frequently purchased brand, impulse buying, evaluation of sales promotions, and extravagance.

Table 4.31: ANOVA Results for Income

| VARLABLE NAME | $\begin{gathered} \text { LOW } \\ \text { INCOME } \\ (\bar{X}) * \end{gathered}$ | $\begin{gathered} \text { MEDIUM } \\ \text { INCOME } \\ (\bar{X})^{*} . \end{gathered}$ | $\begin{gathered} \text { HIGH } \\ \text { INCOME } \\ (\bar{X})^{*} \end{gathered}$ | H. Ratio | F- <br> Probability | Levene <br> Test for Homoge neity | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value Consciousness | 3.3256 | 3.6593 | 3.7000 | $\begin{gathered} 6.736 \\ 4 \\ \hline \end{gathered}$ | 0.0015 | 0.187 | Groups 2\&1 Groups 3\&1 |
| Preference for "Everyday Low Pricing" | 3.4286 | 2.9677 | 3.1957 | $\begin{gathered} 4.884 \\ 3 \end{gathered}$ | 0.0086 | 0.801 | Groups 1\&2 |
| Knowledge of Pre-Discount Price | 3.1136 | 2.9783 | 2.7083 | $\begin{gathered} 4.233 \\ 6 \end{gathered}$ | 0.0160 | 0.044 | Groups 1\&3 |
| Impulse Buying | 2.0465 | 2.2826 | 2.5102 | $\begin{gathered} 4.425 \\ 7 \\ \hline \end{gathered}$ | 0.0133 | 0.534 | Groups 3\&1 |
| Evaluation of Sales <br> Promotions | 2.4545 | 2.8587 | 2.8400 | $\begin{gathered} 4.475 \\ 1 \end{gathered}$ | 0.0127 | 0.019 | Groups 2\&1 |
| Extravagance | 2.2727 | 2.4348 | 2.9167 | $\begin{gathered} 7.002 \\ 6 \end{gathered}$ | 0.0012 | 0.989 | Groups 3\& 1 Groups 3\&2 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

Lower income groups are found to be less value-conscious than both the medium and high income groups. For lower income groups, the level of agreement with the statement "The quality of a product is as important as its price for me" is less when compared with medium and high income consumers. Lower income groups differ from high income groups also in terms of impulse buying and extravagance. Lower income groups are less tempted to impulsively buy products located near the cashpoint and are less extravagant than high income groups. Another finding is that extravagance increases with increased income.

In terms of preference for "Everyday Low Pricing" over occasional sales promotions, with a mean of 2.9677 , the medium income groups show least preference for "Everyday Low Pricing", whereas the low income group show the strongest preference for this kind of pricing. The difference between the two income groups is statistically significant.

Among the three groups, the low income consumers are more likely to know the prediscount price of a frequently purchased brand, when compared with the high income groups. However, it is worth mentioning that significance of Levene Test for Homogeneity of Variances is below 0.1 indicating that the group variances are not equal. Also at a Levene Test with an " $\alpha$ " value below 0.1 , low income groups evaluate sales promotions less positively than medium income groups.

### 4.5.1.7. Occupation / Working Status

It is important to see whether occupation / working status has an impact on the purchasing patterns of consumers as well as their responses to sales promotions. The occupations of respondents in the study are too diverse for having any statistical significance when a test is performed. Therefore the occupation variable is converted into a working status variable:WORKSTAT. All people who have a job compose group 1: Working. Housewives, retired people and the unemployed compose group 2: Non-working-, and finally all students comprise the third group: student.

Like before, analysis of variance is performed in order to detect the variances among the three working status groups. The results are summarized in Table 4.32.

Table 4.32: ANOVA Results for Working Status

| Variable |  | NON working ( $\overline{\mathrm{X}}$. | $\begin{gathered} \text { studen } \\ \frac{T}{x_{x}} \text {. } \end{gathered}$ |  | $\underset{\substack{\text { Probabil } \\ \text { ity }}}{\mathrm{F}}$ | Levene Test for Homoge neity | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stockpiling due to Price Discount | 2.6875 | 2.6000 | 2.9524 | 2.5897 | 0.0783 | 0.000 | Groups <br> 1\&3 <br> Groups <br> 2\&3 |
| Preference for "Everyday Low Pricing" | 3.2917 | 3.3256 | 2.8361 | 6.6193 | 0.0018 | 0.584 | Groups <br> 1\&3 <br> Groups <br> 2\&3 |
| Brand Loyalty | 3.0652 | 2.8333 | 2.6885 | 3.9055 | 0.0223 | 0.353 | Groups $1 \& 3$ |
| Impulse Buying | 2.2553 | 2.0455 | 2.4355 | 3.5869 | 0.0310 | 0.295 | $\begin{aligned} & \text { Groups } \\ & 3 \& 2 \end{aligned}$ |
| Negative <br> Attitudes <br> Towards <br> Promotions | 2.4565 | 2.4667 | 1.8906 | 10.0267 | 0.0001 | 0.357 | Groups 1\&3 Groups 2\&3 |
| Brand <br> Substitution as a Response to the Availability of a Lower Priced Brand | 2.5957 | 2.8667 | 2.9688 | 3.2731 | 0.0406 | 0.027 | Groups 3\&1 |
| Liking Variety | 3.2609 | 2.9318 | 3.3438 | 4.2827 | 0.0155 | 0.971 | $\begin{aligned} & \text { Groups } \\ & 3 \& 2 \\ & \hline \end{aligned}$ |
| Extravagance | 2.4792 | 2.2889 | 2.7419 | 3.4674 | 0.0337 | 0.054 | Groups 3\&2 |
| Conservatism | 2.6667 | 2.6889 | 2.2698 | 4.9436 | 0.0083 | 0.572 | Groups <br> 1\&3 <br> Groups <br> 2\&3 |
| Variety-Seeking | 2.4894 | 2.6364 | 2.8387 | 3.5696 | 0.0306 | 0.040 | Groups <br> 3\&1 |

* Scale values: 1= Strongly disagree, 2= Disagree, 3=Agree, 4= Strongly agree

The examination of the table indicates that when the frequently purchased brand is available at a discounted price, students are more likely to stockpile than both the working and non-working groups (Levene $\alpha \leq 0.1$ ).

Students also differ from the other two groups in terms of their preferences for "Everyday Low Pricing" in the sense that they are less in favor of "Everyday Low Pricing" than the working and non-working consumers. In terms of brand loyalty, students are found to be significantly less brand loyal than working consumers. Regarding the variable impulse buying, students are more likely to be tempted to make impulse purchases when they are compared with non-working consumers who have to be more cautious about their expenditures.

Interestingly, students also deviate from working and non-working groups with regard to attitudes towards promotional activities. With a mean score of 1.8906 , students are the only group who disagree with the statement "I would prefer that products are sold without any sales promotion activities".

In comparison to students, the non-working groups like variety to a lesser extent, that is to say, they are less adventurous. Consistent with this finding, both the working and the non-working groups are found to be more conservative in their shopping behavior than students in the sense that they do not like to purchase something new.

Finally at a Levene Test with an " $\alpha$ " value which is below 0.1 , there are three more findings which nevertheless require elaborating on. In line with the finding that the students are less brand loyal, they are also found to be more likely than the working
group to substitute brands as a response to the availability of a cheaper brand which they think is as good as the brand they frequently buy. Students are also found to be more extravagant than non-working and more variety-seeking than working groups in terms of their shopping behavior.

### 4.5.1.8. Household Size

Household size is suggested by past research to be associated with dealing activity. Indeed some researches like Teel, et. al (1980) and Bawa and Shoemaker (1987) find that larger households are more coupon-prone. On the other hand, some researches such as Cotton and Babb (1978) and Mittal (1994) argue that larger households are less deal and coupon-prone. In this study, however, one-way ANOVA results show no statistically significant association between household size and variables related with sales promotions.

### 4.5.1.9. Modes of Transportation to the Place of Shopping

There has been very limited research on the association between car ownership and deal-proneness. In a 1978 study Blattberg et. al. find that owning a car makes a household more deal-prone. In this study a similar variable is tested. One-way ANOVA analyses are conducted to see whether differences exist between those who go to shopping with their own car, by taxi, by "dolmus", by public bus, or on foot with regard to the various dependent variables included in the research. The one-way ANOVA results, however, show no significant relationship between the variable
modes of transportation to the place of shopping and any of the dependent variables included in this study.

### 4.5.2. Psychographics

Hypotheses 50.1-50.42, Hypotheses 51.1-51.42, and Hypotheses 52.1-52.37 are related with correlations between three important psychographic variables: liberalism, variety seeking, and being market maven, and various research variables.

In psychographic segmentation, buyers are divided into different groups on the basis of social class, lifestyle, and/or personality. Each person has a distinct personality that will influence his or her shopping behavior. In this study, three important variables which are assumed to be relevant to sales promotions phenomenon is included in the statistical analyses: liberalism, variety-seeking, and being a "market maven".

### 4.5.2.1 Liberalism

In order to see how liberalism is associated with other variables, it is operationalized by measuring the level of agreement with the statement " I like trying out new things" A new bivariate nominal variable is created: LIBERAL. Those who "strongly agree" and "agree" with the statement are called "liberals" and those who do not agree are called "conservatives". $75.4 \%$ of the sample is composed of liberals and $24.6 \%$ is constituted by conservatives. T-test for independent samples is performed and the results are displayed in Table 4.33.

Table 4.33: T-test Results for Liberals versus Conservatives

| VARIABLE <br> LIBERAL <br> $(\overline{\mathrm{X}})^{*}$ | CONSERVATIVE <br> $(\overline{\mathrm{X}})^{*}$ | t- <br> value | 2-Tail <br> Significance |  |
| :--- | :---: | :---: | :---: | :---: |
| Deal Proneness | 2.8897 | 2.5208 | 2.76 | .007 |
| Unplanned purchase of a frequently <br> purchased brand due to its <br> promotion | 2.2414 | 1.9574 | 2.53 | .013 |
| Selective attention to frequently <br> purchased brands | 2.1479 | 2.6250 | 4.17 | .000 |
| Brand Substitution as a Response to <br> Availability of a Lower Priced Brand | 2.9452 | 2.5417 | 3.29 | .002 |
| Product Knowledge | 2.7832 | 3.0000 | 2.01 | .047 |
| Variety Seeking | 2.7847 | 2.2979 | 4.00 | .000 |
| Budgeting | 2.6897 | 2.9583 | 2.01 | .047 |
| Impulsiveness | 2.8776 | 2.3333 | 3.59 | .001 |

* Scale values: $1=$ Strongly disagree, $2=$ Disagree, 3=Agree, 4= Strongly agree

Liberals are found to be more likely to be deal prone, to make unplanned purchases of a frequently purchased brand due to its promotion, to substitute brands as a response to the availability of a lower priced brand, to be variety-seekers, and to be impulsive. On the other hand in contrast to liberals, conservatives are found to be more likely to pay selective attention to frequently purchased brands, to know more about choosing the best brand in a given category, and to do budgeting. The most important finding perhaps is the positive association between liberalism and dealproneness. Conservative people seem to be more cautious about deals and making promotional purchases.

### 4.5.2.2. Variety-seeking

From a managerial point of view, the concept of variety seeking is important because different types of variety seeking behavior require different marketing strategies. Variety seeking might arise from boredom and satiation which are induced by cumulative experience with the same brand. It would be easier to induce variety seekers to switch to a brand, but harder to keep them from switching away from it. The opposite is true for variety avoiders. This may mean that a continued short-term promotional activity (e.g. coupons, deals) should be directed at the variety seekers and massive pulsing strategy is required for variety avoiders. The introduction of new brands can be much easier in a product class for which there are many variety seekers.

The level of agreement with the statement "Even though I like the brands I use, after a while I want to try different brands" is measured. After a recoding procedure a new nominal variable VARIETY is obtained with two categories: variety-seekers and variety avoiders. $65.1 \%$ of the sample are found to be variety seekers whereas $34.9 \%$ are variety avoiders.

Table 4.34 shows that variety seekers are less brand loyal and more liberal than variety avoiders. As can be expected variety seekers are less likely to pay selective attention to frequently purchased brands than avoiders since they are in search of new and different things when they are shopping. Variety seekers are also more likely to try unfamiliar brands due to their promotions, to also buy the complementary of a promoted product purchased and to substitute brands as a response to the availability of a lower priced brand .

Table 4.34: T-test Results for Variety Seekers versus Non Variety Seekers

| VARIABLE | $\begin{aligned} & \text { VARIETY } \\ & \text { SEEKER } \\ & (\bar{X})^{*} \end{aligned}$ | VARIETY AVOIDER $(\bar{X})^{*}$ | t-value | 2-Tail <br> Significance |
| :---: | :---: | :---: | :---: | :---: |
| Brand Loyalty ... | 2.6695 | 3.0794 | 3.94 | . 000 |
| Trial of an unfamiliar brand due to its promotion | 2.6364 | 2.3881 | 2.26 | . 026 |
| Selective attention to frequently purchased brands | 2.1901 | 2.4394 | 2.20 | . 030 |
| Brand Substitution as a Response to Availability of a Lower Priced Brand | 2.9113 | 2.7164 | 1.70 | . 092 |
| Complementary Purchase | 2.6048 | 2.3134 | 2.37 | . 020 |
| Liberalism | 3.0323 | 2.5821 | 4.26 | . 000 |

* Scale values: $1=$ Strongly disagree, $2=$ Disagree, $3=$ Agree, 4= Strongly agree


### 4.5.2 3. Market Maven

Based on the findings of Feick and Price (1987) supporting the existence of a group of consumers called "market mavens", a market maven index is created and the correlation coefficients for the association between being market maven and various variables are computed. The "market maven" index is an average of a respondent's scores for the following variables: knowledge of pre-promotion price, comparison of discounted price of a brand with other brands, preparation of a shopping list, shopping competitiveness, and product knowledge.

Table 4.35 lists all the variables which are found to be statistically significantly associated with the variable "being market maven". The table gives the Pearson

Product Moment Correlation Coefficients and the corresponding significance levels for each association. All the correlations listed below are significant at $\mathrm{p} \leq 0.1$.

Table 4.35 Correlation Between "Being Market Maven" and Other Variables

| Association between Being Market Maven and <br> Variable... | Pearson R | Level of <br> Significance <br> (p) |
| :--- | :---: | :---: |
| Ability To Plan Ahead |  | 0.000 |
| Comparison Shopping | 0.3542 | 0.3299 |
| Store Loyalty | -0.3290 | 0.000 |
| Budgeting | 0.2949 | 0.000 |
| Being <br> Promoted Products | 0.2829 | 0.000 |
| Stockpiling | 0.2725 | 0.000 |
| Deal Proneness | 0.2186 | $0.003-$ |
| Purchase Of A Brand Only When Promoted | 0.1814 | 0.013 |
| Unplanned Purchase Of A Frequently Purchased <br> Brand Due To Its Promotion | 0.1710 | 0.020 |
| Extravagance |  |  |
| Variety Seeking | -0.1358 | 0.067 |
| Purchasing The Single Brand On Promotion | 0.1346 | 0.068 |
| Trial Of An Unfamiliar Brand Due To Its Promotion | 0.1231 | 0.096 |

The inspection of Table 4.35 reveals that being market maven is strongly associated with ability to plan ahead, comparison shopping, store loyalty (negative association), budgeting, responsiveness to the advertisements of promoted products, stockpiling, and deal proneness. That is to say, a person who is considered to be a market maven is likely to plan more, to indulge in comparison shopping and budgeting, to stockpile,
to respond to the advertisements of promoted products, and to be deal prone. Such a consumer is less likely to be store loyal. Furthermore, a market maven is prone to be responsive to promotional offers, to be variety seeking and less likely to be extravagant.

### 4.6. TYPES OF CONSUMER-ORIENTED SALES PROMOTIONS

The results on types of consumer-oriented sales promotions will be discussed next. The frist three sub-sections ( 4.6.1-4.6.3) present the results on preference for different types of sales promotions, monetary versus non-monetary promotions, and price discount thresholds. These results are mainly not linked with any of the research hypotheses but are nevertheless presented due to their noteworthy academic and managerial implications. The results of Hypothesis 53 is discussed in sub-section 4.6.1. Sub-section 4.6.4 elaborates on Hypotheses 54-63, which in essence investigate the associations between preference for different sales promotion types and some demographic variables.

### 4.6.1. Preference for Different Types of Sales Promotions

There are a variety of sales promotion activities which can be employed by a consumer goods manufacturer firm. It is important for consumer goods companies to identify the extent to which each type of sales promotions is preferred by consumers so that sales promotion budgets can be spent most efficiently. To cast light upon this issue, a number of consumer-oriented sales promotions are included in this study: contests, sweepstakes, free samples, price discount, on-pack / in-pack price discount
coupons, price discount coupons in newspapers and magazines, gifts given with products, "buy one, get one free" type promotions, money-back guarantees, bonuspacks, free sports game tickets, and free movie / theatre / concert tickets.

The following table shows the rank order established as a result of the preferences made by respondents when such promotions are offered by a detergent producer firm:

Table 4.36: Promotion Preference for Detergents

| RANK | PROMOTION TYPE | MEAN <br> SCORE* | STANDARD <br> DEVIATION |
| :---: | :--- | :---: | :---: |
| 1 | Price Discount | 3.33 | 0.71 |
| 2 | Gift given with Product | 3.12 | 0.77 |
| 3 | Free sample | 3.10 | 0.77 |
| 4 | Free movie / theatre / concert ticket | 3.01 | 0.99 |
| 5 | "Buy One Get One Free" | 2.97 | 0.86 |
| 6 | Bonus Pack ( 20\% extra for free) | 2.81 | 0.78 |
| 7 | On-pack Price-off Coupon | 2.66 | 0.89 |
| 8 | Money-back Guarantee | 2.30 | 0.99 |
| 9 | Price-off Coupons in newspapers and | 2.23 | 0.88 |
| 10 | Free sports game ticket |  |  |
| 11 | Sweepstakes | 2.08 | 1.02 |
| 12 | Contests | 2.05 | 0.91 |

* Scale values: $1=$ Strongly not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer

The table clearly shows that for a detergents brand the most preferred type of promotions are price discounts, gifts, and free samples, respectively. The top three choices are followed by free movie / theatre / concert tickets, "Buy one, get one free!"
type promotions, bonus packs, money-back guarantees, and price-off coupons given in newspapers and magazines. The least preferred types of promotions are contests, sweepstakes, and free sports game tickets.

When such promotions are offered by a soft-drink producer firm, a similar picture is depicted in the table below:

Table 4.37: Promotion Preference for Soft-Drinks

| RANK | PROMOTION IYPE | $\begin{aligned} & \text { MEAN } \\ & \text { SCORE* } \end{aligned}$ | $\begin{aligned} & \text { STANDARD } \\ & \text { DEVIATION } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 1 | Price Discount | 3.26 | 0.75 |
| 2 | "Buy One Get One Free" | 3.09 | 0.88 |
| 3 | Free sample | 3.04 | 0.79 |
| 4 | Free movie / theatre / concert ticket | 3.02 | 1.02 |
| 5 | Gift given with Product | 2.99 | 0.83 |
| 6 | Bonus Pack ( $20 \%$ extra for free) | 2.86 | 0.82 |
| 7 | On-pack Price-off Coupon | 2.67 | 0.87 |
| 8 | Price-off Coupons in newspapers and magazines | 2.25 | 0.91 |
| 9 | Sweepstakes | 2.19 | 0.92 |
| 10 | Money-back Guarantee | 2.15 | 1.02 |
| 11 | Free sports game ticket | 2.05 | 1.06 |
| 12 | Contests | 1.90 | 0.89 |

[^0]Like in the case of detergents, the most preferred type of sales promotion for a softdrink brand is again price-discount. This is consistent with the findings of a study conducted by Fader and Lodish (1990) in which in which price cuts have the highest percentage of volume purchased followed by feature, display, and store coupon. Similarly, Kumar and Leone (1988) show that within a store, price promotion produces the largest amount of brand substitution, followed by featuring and displays. The finding of this research is also supported by Yörük's 1993 study in which priceoff deals are found to be the most preferred type of promotions among 6 different promotion types. The second place in this study, is occupied by the "Buy one, get one free" offer, and the third place is same as before; free samples. Following the top three, free movie / theatre / concert tickets, gifts, bonus packs, on-pack discount coupons, discount coupons given by newspapers and magazines, sweepstakes are preferred by consumers respectively. The last choice is the same as before, contests, followed by free sports game tickets and money-back guarantees as the other least preferred types of promotions.

To be able to assess whether preference for a given promotion differ on the basis of the product offering the promotion, t -test for paired samples analyses are conducted (Hypothesis 53). The mean score of a promotion given by a detergent brand is compared to that of a soft-drink brand for each type of promotion included in the study. The results are listed below:

Table 4.38: T-Test for Paired Samples Results on the Preference for Promotions offered by Detergents versus Soft-Drink Brands

| Promotion <br> Type | Correlation <br> (r) | a level of Correlation | Mean for Detergents* | Mean for SoftDrinks | Difference of Means | $\alpha$ level of difference |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contests | 0.695 | 0.000 | 1.7765 | 1.9050 | -0.1285 | 0.011 |
| Sweepstakes | 0.685 | 0.000 | 2.0497 | 2.1989 | -0.1492 | 0.006 |
| Free Samples | 0.648 | 0.000 | 3.1189 | 3.0378 | 0.0811 | 0.096 |
| Gifts | 0.626 | 0000 | 3.1111 | 3.0000 | 0.1111 | 0.035 |
| Buy 1 Get 1 Free | 0.677 | 0.000 | 2.9628 | 3.0851 | -0.1223 | 0.018 |
| Money-back <br> Guarantee | 0.768 | 0.000 | 2.2842 | 2.1366 | 0.1475 | 0004 |

* Scale values: $1=$ Strongly not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer

For some types of promotions, it seems to matter for consumers whether the promotion is offered by a detergents firm or a soft-drink company. For example, the table shows that consumers prefer contests, sweepstakes, "buy one get one free" promotions more when they are offered by a soft-drink company. On the other hand, free-samples, gifts, and money-back guarantees are preferred more when they are offered by a detergents product. For promotions like price discounts, on-pack discount coupons, discount coupons given in newspapers and magazines, bonuspacks, free sports game tickets as well as free movie / theatre / concert tickets, product category does not seem to have an impact on the level of preference.

### 4.6.2. Monetary versus Non-Monetary Promotions

Faced with the dilemma of offering a price discount or a certain amount of free extra product from a fixed promotional budget, it is useful to know which promotional
format consumers are more likely to choose. Non-monetary promotions are often framed as gains segregated from the purchase price of the products. In contrast, discounts merely reduce the purchase price of the product. In this study a variable is included with the attempt to elucidate this dilemma. The response to a promotional offer for a $500,000 \mathrm{TL}$ worth of 5 kg laundry detergent is measured. The respondents are asked to choose between a 100,000 TL price reduction and $100,000 \mathrm{TL}$ worth of extra detergent for free. The offers have the same nominal value but in absolute terms, a $100,000 \mathrm{TL}$ worth of free detergent with a regular price of $500,000 \mathrm{TL}$ reduces the unit price by $17 \%$ whereas a 100,000 TL discount would reduce the unit price by $20 \%$.

In his 1992 research, Diamond outlines the "Nominal Value" and "Unit Price" models and argues that discounts lead to a larger reduction in unit price than extra amounts of product with the same nominal value. The difference between these two types of promotions increases for larger promotions. If shoppers are using a Unit Price model, they will favor discounts over extra product promotions, especially for large promotions. Subjects using the Nominal Price model will be indifferent between discounts and extra product promotions.

The frequency tabulation (Table 4.39) shows that $61.7 \%$ of the consumers prefer a price discount and only $38.3 \%$ prefer an equivalent amount of free extra product. This is in line with Diamond's findings which suggest that for offers of $6.25 \%, 12.5 \%$, $25 \%, 37.5 \%$, and $50 \%$ for a laundry detergent, the preference for discounts increases with the size of promotion. At very low levels, non-monetary incentives such as free extra products may be preferred to discounts but at high levels of promotions, the
preference for discounts appears to be strongest. Diamond also states that these effects are not very strong, and may be dependent on the specific product.

Table 4.39: Frequency Table for Preference for Discounts versus Free Extra Products

|  |  |  |
| :--- | :---: | :---: |
|  |  |  |
|  |  | Frequency |
| DISCOUNT | 121 | Valid <br> Percent |
|  | FREE EXTRA | 75 |
| PRODUCT |  | 38,7 |
| Total | 196 | $-100,0$ |

The reason for the overwhelming preference for discounts versus free extra products may be that the consumers are following a unit price approach in their assessments of the two options. Indeed, the findings on comparison of unit prices show that with a mean score of 3.18 , consumers included in the analysis are likely to compare the unit prices of products in the same category. $91.3 \%$ of respondents indicate indulging in unit price comparison. However, this justification is not evidenced by statistical testing. When preference for discounts versus extra amount of product is crosstabulated with unit price comparison, no statistically significant association between the two variables is found. In addition to this unit price awareness, shoppers may have positive self-attributions about themselves in the form of "Smart Shopper Feeling" more when they choose discounts rather than extra product promotions. A major goal of many shoppers is to reduce their total expenditures. This may also cause consumers to prefer discounts over free extra goods.

On the other hand, as can be expected, preference for monetary versus non-monetary promotions is strongly correlated with a consumer's level of income. This hypothesis is strongly verified by the findings in Table 4.40 .

Table 4.40 : Cross-Tabulation of Preference for Discounts versus Free Extra Products by Level of Income


The inspection of Table 4.40 shows that at significant levels ( $x^{2} \leq 0.1$ ) and fulfilling the minimum expected frequency criteria, preference for price discounts is higher within lower income groups. As the level of income increases, the likelihood for preferring free extra product promotions will increase. The association between the preference for discounts versus free-extra products and income is strong as asserted by the Cramer's $V$ value of 0.19160 significant at 0.03291 . This implies that free extra product promotions are more suitable for niche products. Free extra product
promotions are likely to be more successful and appealing when offered by luxury goods targeted at higher income groups. Monetary promotions are more welcomed by lower income groups and as income decreases, the preference for monetary promotions in the form of price discounts versus non-monetary promotions in the form of free extra products will be more likely to be in favor of monetary promotional offers.

### 4.6.3. Price Discount Thresholds

Being the most preferred type of sales promotions both for detergents and soft-drink brands, price discount is worth elaborating on. Since price discounts are the most favorite type of sales promotions, it is important to know the price discount thresholds for different consumers non-durable goods. A promotion threshold is the minimum value of price discount required to change consumers' intentions to buy. The concept of a threshold can be related to the psychological process of discrimination in which a consumer would not react to a stimulus unless the perceived change were above a just noticeable difference (Luce and Edwards 1958). Della Bitta and Monroe (1980) find that consumers' perceptions of savings from a promotional offer do not differ significantly between $30 \%, 40 \%$, and $50 \%$ discount levels. However they find significant differences between the $10 \%$ and 30 to $50 \%$ levels. They also discuss some managers' beliefs that at least a $15 \%$ discount is needed to attract consumers to a sale.

For the purposes of establishing these price discount thresholds in this study, respondents are asked to specify the minimum level of price discount for various goods which would be attractive to them and which would increase their likelihood
of buying that product. The mean discount percentages are calculated for shoes, tea, chocolate, deodorant, detergents, carbonated drinks, clothing, paper tissues, coffee, margarine, fruit juice, milk, fresh fruits, canned tuna fish, olive oil, and shampoo. The price discount thresholds obtained for each of these product categories are tabulated below:

Table 4.41: Price Discount Thresholds

| Product | Mean | Sta Dev | Min. | Max. | Valid |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Numer |  |  |  |  |  |

Table 4.41 reveals that price discount thresholds for products included in the study range from 18 to $40 \%$. For product groups like clothing, shoes, detergents, tuna fish, shampoo, olive oil and deodorants the average minimum required discount to increase likelihood of purchase ranges from 26 to $40 \%$. For paper tissues, milk, tea, fruit juice,
margarine, coffee, carbonated soft drinks, chocolate, and fresh fruits the discount average ranges between 18 to $24 \%$. A closer inspection of Table 4.41 shows that foods and beverages require less discount levels than clothing and personal care products to be able to attract consumers and increase their propensity to buy the product offering the discount. The results suggest that promotion thresholds exist such that consumers do not change their intention to buy the product unless the price reduction is greater than some threshold value and this finding is consistent with past research (Gurumurthy and Little, 1989; Gupta and Cooper, 1992).

### 4.6.4. Preference for Sales Promotions and Demographics

Coming to the impact of demographic variables on the degree of preference for promotion types, gender plays an important role. Table 4.42 below shows how females differ from males in terms of their preferences for different sales promotions. Females prefer more than males such promotions as on-pack discount coupons (detergents), free samples (soft-drinks), discount coupons in newspapers and magazines (soft-drinks), and free movie / theatre / concert tickets (soft-drinks). On the other hand, the only type of promotion which is found to be more appealing to males than to females is free sports game tickets both valid for detergents and soft-drinks.

Table 4.42 : T-test results for Female versus Male Consumers in their Preferences for Different Sales Promotions

| PROMIOTION TYPE |  | MALES $(\bar{\Psi})^{*}$ | t-value | 2-T Tail <br> Significance |
| :---: | :---: | :---: | :---: | :---: |
| On-pack Discount Coupon (Detergents) | 2.7770 | 2.3111 | 2.89 | 0.005 |
| Free Sports Game Ticket (Detergents) | 1.8929 | 2.6458 | -4.26 | 0.000 |
| Free Samples (Soft-Drinks) | 3.1241 | 2.7959 | 2.27 | 0.026 |
| Discount Coupons in N.papers and Magazines (Soft-Drinks) | 2.4361 | 1.6957 | 5.61 | 0.000 |
| Free Sports Game Tickets (Soft-Drinks) | 1.8759 | 2.5714 | -3.78 | 0.000 |
| Free movie / theatre / concert tickets (Soft-Drinks) | 3.0942 | 2.7917 | 1.62 | 0.110 |

* Scale values: 1= Strongly not prefer, 2= Not prefer, 3=Prefer, 4= Strongly prefer

Demographic variables such as age, marital status, and working status are also found to be influencing the preference for promotion types. Table 4.43 shows how younger consumers are more attracted to free movie / theatre / concert tickets as a promotion type when compared with middle aged and elderly consumers. Tickets for social and cultural activities appeal more to the younger generation as a sales promotion tool.

Table 4.43: ANOVA Results for Different Age Groups with regard to Promotion
Preferences

| PROMOTION TYPE | AGE 30 <br> AND <br> BELOW <br> (X) | $\begin{aligned} & \text { AGE } \\ & \text { BW } \\ & 31,50 . \\ & (X) \end{aligned}$ | AGE 51 <br> AND <br> BELOW <br> ( X ) | F-Ratio | F- <br> Probability | Leyene <br> Test for Homoge neity | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Free movie / theatre / concert tickets (Detergents) | 3.3667 | 3.2872 | 2.6071 | 6.8589 | 0.0014 | 0.589 | Groups 1\&3 Groups 2\&3 |
| Free movie / theatre / concert tickets (Soft-Drinks) | 3.3333 | 3.3118 | 2.6923 | 4.9903 | 0.0080 | 0.657 | Groups 1\&3 Groups 2\&3 |

* Scale values: $1=$ Strongly not prefer, $2=$ Not prefer, 3=Prefer, 4= Strongly prefer

Marital Status also seems to play a role in preferences for sales promotions. In Table 4.44 below, the differences between single, married, and divorced/widowed consumers can be observed. Single consumers prefer free samples and free movie / theatre / concert tickets more than married consumers. However for soft-drink brands, the Levene $\alpha$ value is less than one. On the other hand, on-pack price discount coupons are preferred considerably more by divorced / widowed consumers than the single and married consumers as can be seen in Table 4.44.

Table 4.44: ANOVA Results for Marital Status with regard to Promotion Preferences

| PROMOTION TYPE | $\stackrel{\text { SiNGLE }}{ }$ | $\stackrel{\text { MARRIED }}{(X)}$ | DIVORCED/ WHOWED ( $\bar{X}$ ) | F-Ratio | F. <br> Probability | Levene Test for Homogenci ty | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Free Samples (Detergents) | 3.2222 | 2.9231 | 2.9000 | 3.5988 | 0.0292 | 0.921 | Groups 1\&2 |
| Free movie / theatre / concert tickets (Detergents) | 3.2479 | 2.6364 | 2.6000 | 9.7004 | 0.0001 | 0.171 | Groups 1\&2 |
| On-pack Price Discount Coupons (Soft-Drinks) | 2.6549 | 2.5806 | 3.4444 | 4.0314 | 0.0194 | 0.209 | Groups 3\&2 Groups 3\&1 |
| Free movie / theatre / concert tickets (SoftDrinks) | 3.2655 | 2.6406 | 2.6000 | 9.3392 | 0.0001 | 0.010 | Groups 1\&2 |

[^1]The inspection of Table 4.45 reveals that, students prefer much more than nonworking groups free movie / theatre / concert tickets as promotions. This finding is valid both for detergents and soft-drinks. For detergents, working groups prefer this kind of promotion more in comparison to the non-working groups.

Table 4.45: ANOVA Results for Working Status with regard to Promotion

## Preferences

| VARIABLC | Working |  | STHDent | FRatio | F. <br> Probability | Levene Test for Homogeneity | Scheffe Results |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Free movie / theatre / concert tickets (Detergents) | 2.9792 | 2.5455 | 3.3065 | 8.0939 | 0.0005 | 0.593 | Groups 1\&2 Groups 3\&2 |
| Free movie / theatre / concert tickets (Soft-Drinks) | 3.0217 | 2.5476 | 3.3500 | 8.8008 | 0.0002 | 0.801 | Groups 3\&2 |

* Scale values: $1=$ Strongly not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer


### 4.7. ANCLLLARY FINDINGS

Apart from the findings on main research objectives, several ancillary findings emerge as a result of the statistical analyses performed. An important ancillary finding is the provision of support for the association between income and education. The crosstabulation results show that there is a positive relationship between income and education. People with higher education have higher levels of household income. The statistics show that the correlation is strong ( Gamma $=0.32019$, Somer's $\mathrm{D}=0.20347$, Kendall's Tau=0.18739) and statistically significant at $\alpha \leq 0.1$.

It is also found out that females are more brand-loyal than males. While $77.1 \%$ of females are classified to be brand loyal, this percentage is 69.2 for males. On the other hand, females are also found to be more "liberal" than males. $78.3 \%$ of females compared to $68.6 \%$ of males are liberals. Consistent with the finding on brand loyalty, males are found more prone to switch newspapers due to promotions offered. While $19.2 \%$ of males indicate a willingness to switch newspapers due to promotions, this percentage drops to 14.6 for females.

### 4.8. SUMMARY OF RESULTS ON RESEARCH HYPOTHESES

Since all the results explained so far are very extensive, they need to be put in some compact form. Appendix IV provides a full list of all the main and sub-hypotheses along with their statistical test results. Out of 850 research hypotheses, 117 have been statistically significantly supported and for the remaining 733 statistical tests do not yield significant results.

## 5. CONCLUSIONS AND IMPLICATIONS

### 5.1. CONCLUSIONS OF THE RESEARCH

The primary objective of this research has been to identify the factors underlying the impact of sales promotions on consumer purchasing patterns for non-durable goods and to investigate how consumers differ in their responses to different promotion types under a diverse set of promotional conditions. The study also attempts to present a framework for identifying the deal-prone consumer segments and to reveal how deal-prones differ from non-deal-prones in terms of certain demographic and psychographic variables.

The results of the research provide substantial insights to the questions the study attempts to find answers for. First of all, the research shows that sales promotions are highly available for consumer non-durables and especially for such product classes as detergents, personal care, foods and beverages. The manufacturer firms most frequently choose to offer promotions in the form of gifts, price discounts, and bonuspacks, while sweepstakes and "buy one, get one free" promotions are also available. It is noteworthy that price-off coupons are distributed in a very limited number in Turkey when compared to the enormous number of coupons distributed in United States. Manufacturers in Turkey tend to give direct discounts rather than providing price-off deals in coupon form. This may probably arise from very low redemption rates due to consumers' being unfamiliar with this form of sales promotions. Consumers may find redeeming coupons time-consuming and burdensome. However,
from a different perspective, it can be argued that manufacturer firms can make use of coupons since they are novel and less utilized forms of sales promotions.

On the other hand, literature suggests that price cuts have the highest percentage of volume purchased, followed by featuring and displays (Kumar and Leone, 1988; Fader and Lodish, 1990). Consistent with reviewed literature, the results of this study demonstrate that, the consumers' preferences seem to be very strong for price discounts, gifts, free samples, free tickets, "buy one, get one free" promotions, and bonus packs, though the order may change according to product class offering the promotion. Furthermore, when faced with a decision between monetary versus nonmonetary promotions, most consumers tend to prefer price-discounts over free extra product offers, as supported by prior research (Diamond, 1992). The preference for monetary promotions becomes stronger as the level of income decreases. Moreover, the results indicate that the attractiveness of monetary promotions in the form of price-discounts may vary with different levels of discounts as well as with different product classes, in line with past research findings (Davis, Inman, and McAlister, 1992). In accordance with arguments of Gurumurthy and Little (1989) based on assimilation-contrast theory, research results reveal that, promotion thresholds seem to exist such that consumers do not change their intentions to buy the product unless price reduction is greater than some threshold value. Also, there seems to be different price-discount threshold levels for products included in the study: for clothing, shoes, detergents, tuna fish, shampoo, olive oil, and deodorants the minimum level of discount to increase likelihood of purchase ranges from $40 \%$ to $26 \%$ whereas for fresh fruits, chocolate, carbonated soft drinks, coffee, margarine, fruit juice, tea, milk, paper tissues the minimum discount level ranges from $24 \%$ to $18 \%$. In general, high
priced consumer goods like clothes seem to have higher discount threshold levels compared to low priced products such as paper tissues. Fundamental goods such as milk or margarine and impulse products like chocolate tend to have lower discount thresholds compared to luxury goods. This implies that manufacturer firms should take into consideration the product class for which the discount is being offered. A pair of shoes may require much higher discount levels compared to vegetables or beverages in order to attract and appeal to the consumer.

Regarding the reasons behind making promotional purchases, the results suggest that the most important reason for purchasing a promoted product is that the promoted product is a regularly purchased brand. This is an implication that sales promotions may well be rewarding the brand's existing customer portfolio rather than attracting new buyers, as suggested by Ehrenberg, et. al. (1994). Purchase acceleration also plays an important role in the consumer's decision to purchase a promoted product (Helsen and Schmittlein, 1992). This indicates that consumers tend to buy forward or to stockpile during a promotion and buy less or later than they normally would after the promotion is retracted. On the other hand, those who refrain from buying promoted products either have no confidence in promoted products or the brand they prefer to purchase is not promoted. Two other important reasons are: not coming across or noticing promotions and available promotions being not attractive enough. Since the results show that promotions are highly penetrated, it is not that consumers don't notice them because they are hardly available. It seems consumers are not aware of all the promotional activities which are carried on. This indicates a necessity on the manufacturer's part to take confidence building measures for promotions, to make the promotional signals and the promotions itself more attractive. Regarding the sources
through which the consumers are informed about sales promotions, it seems that consumers are overwhelmingly informed about promotions at the place of shopping. Although to a lesser extent, both print and audio-visual media vehicles also seem to be effective tools for informing consumers about sales promotions activities. At a much less cost when compared to media advertising the manufacturer firms seem to be able to publicize their promotions at the place of shopping by an increased emphasis on features, displays, and point-of-purchase materials.

Moving on the associations between purchasing promoted products and other variables, a remarkable relationship exists between purchasing promoted products and deal-proneness, having purchased a promoted product being a signal of dealproneness. In addition, the purchasers of promoted products are found to be more responsive to the advertisements of promoted products, more likely to purchase a brand due to the attractiveness of its promotion and to make an unplanned purchase of a frequently purchased brand due to its promotion. In short, purchasers of promoted products are more likely to be deal-prone when compared to nonpurchasers. Most importantly, the findings demonstrate the existence of an association between purchasing promoted products and gender. In parallel with Zeithaml's finding that males do not seem to respond as well as females to conventional promotion, females are found clearly more likely to purchase promoted products in comparison to males. This may arise either from males being less deal-prone than females or from the lack of sales promotions that are specifically designed to attract male consumers. Since most of the promotions are offered by detergents and personal care products which are predominantly bought by females, the second interpretation also seems to be probable.

The research results demonstrate that there is a strong association between coupon clipping and being deal-prone. Those who clip coupons from newspapers tend to be more deal-prone than those who do not clip coupons. It may be rational to advertise promotions in those newspapers that offer coupons in the sense that since those who clip coupons are more deal-prone, they are likely to respond to deals after being informed about them through the newspapers that they clip coupons from.

Important findings are generated on deal-proneness. The major finding is the inverse relationship between deal-proneness and brand loyalty. In accordance with the findings of past studies ( Webster, 1965; Bawa and Shoemaker, 1987 ), dealproneness is found to be negatively associated with brand loyalty. Deal-prones tend to be less brand-loyal than non-deal-prones. This means that promotions indirectly induce brand switching and impede loyalty by luring deal-prone consumers into switching to promoted brands. On the other hand, the results lead to the conclusion that deal prones are more likely than non-deal-prones to stockpile when their frequently purchased brand offers a price discount. Deal prones pay more attention to promoted products during shopping, and they are more responsive to the advertisements of promoted products. If a first-time bought promoted product is liked, deal prones are more likely than non-prones to switch from their favorite brand to the new brand. Their repeat purchase probability for this new brand is higher compared to the non-deal prones. Moreover, deal prones are also more likely to evaluate purchasing promoted products positively, to know the pre-discount price of their favorite brand, and to purchase a brand only when it is promoted. As opposed to nondeal prones, deal prone consumers have an increased propensity to switch from their
frequently purchased brands to a different brand of same quality just because the other brand is cheaper. Finally, deal prones have more positive attitudes towards sales promotions in comparison to non deal prones. All these findings point out that sales promotions predominantly attract deal-prones who switch among brands as deals become available.

There are important conclusions to be drawn with regard to consumer characteristics. As mentioned before, females are more likely to purchase products on promotion in comparison to males. Consistently, females are found to be more prone to buy the promoted brand among other brands in a category if that is the only brand on promotion. Compared to males, females are more likely to go and examine a brand if they are exposed to its advertisement which publicizes that the brand is offering a promotion. Contrary to literature, which suggests there is no negative effect of promotion on brand evaluation (Davis, Inman, and Mc Alister, 1992), the results of this study show that, if a brand is frequently on promotion, both males and females evaluate that brand negatively; however, males are likely to evaluate that brand more negatively in comparison to females. In addition, female consumers are more likely to prepare a shopping list and are more competitive shoppers, in the sense that they evaluate themselves to be better at shopping for bargains than most people. In general, females seem to be more responsive to promotional offers (Zeithaml, 1985).

Age is another important variable which requires elaboration. With regard to preference for "Everyday Low Pricing" versus occasional sales promotions, the elderly differ from the younger in the sense that the elderly much more strongly favor "Everyday Low Pricing" over occasional promotions when compared to youngsters.

It would be reasonable conclude that the younger feel more positive about sales promotions as opposed to the elderly. Similarly, in terms of comparison of unit prices within the same product category, as opposed to the youngsters, the elderly are more likely to make unit price comparisons. This finding implies that the elderly are more price conscious shoppers when compared with the young generation shoppers. This finding is in parallel with the results of Zeithaml (1985) revealing that older shoppers plan more for shopping, tend use information more, economize more than younger shoppers, and are influenced more by conventional promotions than any other segment.

When it comes to knowing the pre-discount price of a brand, the elderly score better than the middle-aged. This can again be interpreted as the elderly being a more price conscious consumer group. However, the elderly are more suspicious of frequently promoted brands in comparison to the middle-aged. Indeed, they are found to have more negative evaluations about frequently promoted products in comparison to the middle-aged. Moreover, the elderly are less likely to do impulse buying because the results show that on the likelihood of impulse purchasing of products placed near the cash-point, the elderly are less impulsive when compared to the middle aged and the younger shoppers. Indeed, it would even not be wrong to say that the elderly are not tempted to make impulse purchases. The results clearly show that, as age increases the likelihood of impulse purchasing decreases. Similarly, elderly are less likely than the middle-aged to spontaneously buy a frequently purchased brand just because it is being promoted at that time. Interestingly, the elderly shoppers differ from the middleaged and younger shoppers in terms of preference for products to be sold with no promotion at all. While the younger and middle-aged groups do not seem to differ,
the elderly prefer more strongly that products are sold without promotions. The results show that the elderly shoppers are more conservative, less variety-seeking, less extravagant than the middle-aged and younger shoppers. The results suggest that the available promotions offered attract younger and middle-aged shoppers rather than elderly shoppers. Suitable promotions yet need to be designed for elderly shoppers to respond positively to promotional offers.

Moving on to education and income, which are very important demographic variables, the research results reveal that there is a strong inverse relationship between coupon-proneness and education. As the level of income increases, the likelihood of clipping coupons form newspapers decreases. Less educated consumers are more likely to clip coupons in comparison to more educated consumers and this can be explained by a mediational causal model (Mittal, 1994) in which education and coupon redemption is mediated by busyness. Consumers with more education tend to be more busy and therefore have less time to indulge in comparison shopping which leads to lower perceived economic benefits and less favorable attitudes. Consequently, the consumer ends up not clipping or redeeming coupons and gradually becomes insensitive to coupon promotions. On the other hand, the results show that there is a positive relationship between income and coupon clipping. Consumers with lower levels of income are less likely to clip coupons. As the level of income increases, the likelihood of clipping coupons also increases which is in conformity with findings of past studies (Levedahl, 1988; Bawa and Shoemaker, 1989). The justification for this relationship could be that those newspapers offering coupons are extremely more expensive than newspapers without coupons and they require uninterrupted regular
purchase. The lower income consumers simply cannot afford to buy these newspapers and therefore they are less likely to be coupon-clippers.

Income is also found to be associated with value consciousness, preference for "Everyday Low Pricing", knowing the pre-discount price of a frequently purchased brand, impulse buying, evaluation of sales promotions, and extravagance. Value consciousness increases with income in the sense that quality plays a more important role for higher income groups because these groups afford to pay more for quality. The likelihood of impulse buying and level of extravagance also seem to increase with growth in income. However, as can be expected, preference for "everyday low pricing" and chances of knowing the pre-discount price of a frequently purchased brand is stronger for lower income groups.

Working status is associated with stockpiling, preference for "Everyday Low Pricing", brand loyalty, impulse-buying, having negative attitudes towards promotions, brand substitution, variety-seeking, extravagance and conservatism. Students are less in favor of "Everyday Low Pricing" than the working and nonworking consumers. In terms of brand loyalty, students are found to be significantly less brand loyal than working consumers. Regarding the variable impulse buying, students are more likely to be tempted to make impulse purchases when they are compared with non-working consumers who have to be more cautious about their expenditures. Students have more positive views about promotions, are more varietyseeking and more liberal in their shopping behaviors. They also tend to switch brands more than the working and non-working groups.

Marital status plays significant roles in explaining the variance among consumers with regard to responses to and attitudes towards sales promotions. Concerning preference for "Everyday Low Pricing" for example, single consumers significantly differ from the married and widowed/divorced consumers. Married and widowed/divorced consumers seem to be more in favor of "Everyday Low Pricing" when compared with single consumers. Single consumers also differ from widowed/divorced consumers in terms of impulse buying- the widowed/divorced are more unlikely to spontaneously purchase products that are placed near the cash-point when compared with single consumers. In terms of preference for products to be sold with no promotions at all, being single or married makes a difference. Single consumers' level of preference for a promotion-free market environment is less than that of males. When spontaneously buying a frequently purchased brand just because it is being promoted at that time, the single shopper is more prone to do so as opposed to the married shopper. Marital status can be associated with psychographic variables such as variety seeking, planning, extravagance, liberalism, budgeting, impulsiveness. Single and widowed/divorced consumers are more variety seeking than the married. In terms of planning, married consumers plan ahead more than the single consumers, and widowed/divorced consumers plan ahead even more than the married consumers. That is to say, the single consumers do the least planning ahead. Moreover, the results also show that single consumers are more extravagant than the married and the widowed/divorced- meaning, they spend money without thinking about it. Again, single consumers are not good at budgeting as the widowed / divorced. While single consumer do least budgeting, widowed / divorced shoppers budget most. The married and the single also differ significantly on liberalism- the single consumers are more
likely to try out new things then the married consumers. When it comes to impulsiveness, single consumers are significantly more impulsive than the married.

Consumers with children are found to be more brand loyal than consumers without children. People with children are less likely to be dragged into impulse buying when compared to people with no children. Consistent with the finding that consumers with children are more brand loyal, they are also found to be less likely to switch from their frequently purchased brands to a different brand of the same quality just because the other brand is cheaper. On the other hand, consumers with no children are more likely to make an unplanned purchase of a favorite brand due to its promotion. Regarding psychographic variables, consumers with children also differ from consumers without children. Consumers with children are more able to plan ahead, less extravagant, more likely to do budgeting, less likely try new things therefore less liberal, and less impulsive than consumers without children. Within the group of consumers who have children, those who have children aged below 6, are also found to be less extravagant than those who do not have a child aged below 6 . Household size and mode of transportation to the place of shopping are not found to be correlated with any of the variables in the research.

Three psychographic variables are investigated and these variables lead to valuable conclusions: liberalism, variety-seeking, and being a "market maven". Liberals are found more likely to be deal prone, to make unplanned purchases of a frequently purchased brand due to its promotion, to substitute brands as a response to the availability of a lower priced brand, to be variety-seekers, and to be impulsive. On the other hand, in contrast to liberals, conservatives are found to be more likely to pay
selective attention to frequently purchased brands, to know more about choosing the best brand in a given category, and to do budgeting. The most important finding perhaps is the positive association between liberalism and deal-proneness. Conservative people seem to be more cautious about deals and making promotional purchases. Sales promotion seems to be a modern, conventional marketing tool which mainly appeal to the so called "liberal" consumer who likes to try new products as soon as they are launched, who are open to new and original ideas and who approach sales promotions with sympathy rather than caution.

Kahn and Louie (1990) find that consumers who switch among brands are likely to be more familiar with a larger array of brands than last-purchase-loyal consumers who tend to purchase a single brand repeatedly. In a 1984 study, Givon models brand switching behavior as a variety-seeking phenomenon and suggests that the ability to measure consumers' variety seeking tendencies in a certain product market will bring about better understanding of the brand switching in this market. In accordance with literature reviewed, the results of the present study show that variety-seeking is negatively associated with brand loyalty. As can be expected, variety seekers are less brand loyal and more liberal than variety avoiders. Variety seekers are less likely to pay selective attention to frequently purchased brands than avoiders since they are in search of new and different things when they are shopping. Variety seekers are also more likely to try unfamiliar brands due to their promotions, to also buy the complementary of a promoted product purchased and to substitute brands as a response to the availability of a lower priced brand. Variety-seeking is likely to arise from boredom, satiation, and continuous experience with the same brand. Since it is easier to induce variety-seekers to switch to a brand, a continued promotional activity
directed at variety-seekers could prove to be successful in boosting sales, especially during the introduction of new brands in product classes for which there are many variety-seekers.

Finally, interesting conclusions emanate from the study regarding the concept of being a "market maven". Feick and Price (1987, p.85) define "market mavens" as "individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information." There is evidence on the part of this study to conclude that a person who is considered to be a market maven is likely to plan more, to indulge in comparison shopping and budgeting, to stockpile, to respond to the advertisements of promoted products, and to be deal prone. Such a consumer is less likely to be store loyal. Furthermore, a market maven is prone to be responsive to promotional offers, to be variety seeking and less likely to be extravagant. Market mavens seem to be a suitable target group for promotional activities.

### 5.2. IMPLICATIONS AND SUGGESTIONS

### 5.2.1. Implications for Managers

A brand's success in the market depends predominantly on the effective and efficient supervision of its marketing budget. The allocation of marketing appropriations between media advertising and sales promotions is a vital decision that the brand manager needs to make. To be able to make such a decision, the brand manager requires to know the impact of sales promotions on sales volume and consumer response. Moreover, the brand manager also needs to design sales promotions in such a way that the specific objectives of the activity is completely fulfilled.

The results of this research has remarkable implications for the brand manager. The results show that the level of availability of promoted products is very high especially for such product classes as detergents, personal care products and foods. The question is "Do all these promotions serve their purposes?". The first step for the manager is to identify clearly the specific objective which the promotion is supposed to reach. Does the promotion aim to boost sales volume or does it merely target to reward the brand's loyal buyers? Is the purpose of the promotion to build and reinforce the brand's franchise and image or does the activity aim to attract a main competitor's customers? Each specific objective requires different approaches.

The results demonstrate that consumers tend to prefer price-discounts, gifts, free samples, free tickets, "buy one, get one free" promotions, and bonus packs. While price discounts may be instrumental in igniting sales volume, samples may be more
appropriate for new-to-the-market products. Bonus-packs and gifts could be used for rewarding loyal consumers and "buy one, get one free" promotions can be helpful in melting trade inventories. The manufacturer firms must realize that the same promotion may yield different results for different product classes as well as for new versus established products. Moreover, different promotion types have different impacts on sales and on consumer response.

The results show that lower income groups prefer monetary promotions whereas higher income groups are inclined towards non-monetary promotions. This implies that, for luxury goods, non-monetary promotions such as extra product offers, gifts, free tickets, contests, sweepstakes tend to be more appropriate, whereas value-formoney or mid-price brands may need to offer monetary promotions such as price reductions or discount coupons. In addition to this, when offering price discounts, the manufacturer firms must be aware of the existence of price discount thresholds which mean that a certain minimum level of reduction may be necessary for inducing consumers to buy the brand. Furthermore, these thresholds vary according to product class. For example, foods may have much lower discount threshold levels than clothes. The manufacturer must take into consideration these variations when offering discounts. On the other hand, the results of the study indicate that, in Turkey coupons are less employed sales promotion instruments. Taking into account the growing levels of newspaper and magazine readership rates in Turkey, media-distributed priceoff coupons offer wide opportunities to be exploited by manufacturer firms.

Another important finding which concerns non-durable goods producers is that advertised promotions are bound to be more successful than unadvertised promotions.

If a brand has enough budget to offer a promotion and to advertise the it at the same time, then the brand manager should not refrain from having promotional advertising. Then the next step is deciding on where to advertise the promotion. The results indicate that consumers are mostly informed about promotions at the place of shopping. Without spending tremendous amounts of money, a firm may simply advertise its promotion with in-store tools such as posters, stickers, shelf-flyers, hanging signs, features, or displays and easily reinforce the impacts of the promotion. Needless to say, if the brand is a well-known, leading or established brand with enough funds to do TV and radio advertising, then the brand manager should not hesitate to do so since a strong positive interaction between promotion and advertising is evidenced by this research as well as prior research (Bemmaor and Mouchoux, 1991).

Regarding the association between deal-proneness and brand loyalty, the results show that deal-proneness is negatively correlated with brand loyalty. Those who respond to promotions tend to be less deal-prone. At this point, manufacturer firms must be cautious about sales promotions' effects on brand loyalty. Since sales promotions tend to attract deal-prone consumers who are mainly brand switchers, promotions may be causing only temporary incremental sales volumes. Assuming that most of the incremental volume comes from deal-prone consumers who are difficult to turn into loyal buyers, the volume may decrease down to its pre-promotion level once the deal is retracted. When the manufacturer stops offering the promotion, the deal-prones who have purchased the product just because of its promotion will tend to be in search of new promotional offers and switch when they become available. Therefore, the manufacturer firms must not rely on sales promotions by themselves for building
the brand's franchise and continue to invest in TV advertising. An overdose of promotions may furthermore lead to negative brand evaluations as shown by research results.

Finally, demographic and psychographic segmentation must be employed for designing tailor-made sales promotions. The results show that females, young and single consumers, higher income groups, consumers without children are highly responsive to sales promotions. Liberal minded, less conservative consumers as well as variety-seekers also constitute a pool from which sales promotions activities attract consumers. At this point, it is the brand manager's task to think of and come up with creative sales promotion techniques to appeal even to the most resistant consumers such as conservative and elderly segments.

### 5.2.2. Implications for Academicians and Suggestions for Future Research

The major implication of the research results on the part of the academician is the need to restrict the scope of future research to specific areas in order to obtain more detailed and in-depth information about the parameters investigated regarding sales promotions. Perhaps individual studies on sales promotions within the context of certain product groups such as detergents or food products must be carried out. Another area of focus may be impact of promotions for new versus established brands. Rather than an overall reference to sales promotion types, each promotion type and especially price-discounts must be examined in full detail. Further research is required to determine which promotion is ideal for different product groups. On the
other hand, the very question of whether price discounts can really be considered as sales promotions must be addressed in future studies.

Another implication of the research concerns price discount thresholds. Studies using scanner level data or studies in a controlled experimental setting must be carried out to determine more realistic and accurate discount thresholds for numerous non-durable products and to identify how threshold levels differ along product classes, brand heritage and brand image( new versus established brands, name versus store brands ). Furthermore, saturation levels must also be examined since it is important to know the discount levels above which the increments in discount does not yield proportionate amounts of increase in sales. By knowing the saturation levels for certain products it is possible to avoid providing excessive discounts which may hinder the profitability of the promotion.

Another implication for academicians is to need to elaborate on psychographic segmentation in addition to demographic segmentation which is crucial in understanding consumer response to promotions. This study shows that psychographic characteristics such as deal and coupon proneness, value consciousness, liberalism and variety-seeking are instrumental in explaining behavior, attitudes, and responses of consumers to different promotional offers. Perhaps many more psychographic parameters would be helpful in explaining the impact of sales promotions on consumer response. These need to be identified and investigated by academicians in future research.

There seems to be a need to conduct a comparative research on the brand building effects of sales promotions versus TV advertising. On the other hand, the interaction between promotions and advertising is another area of experimentation for researchers for enriching theory. Since the short-term and long-term effects of promotions may vary dramatically, separate studies are needed to reveal the immediate versus long-run impacts of sales promotions. Finally, in addition to studies like this thesis which provide the consumer perspective to sales promotions, firm-level researches must be carried out to generate information about sales promotion budgets versus advertising budgets for established as well as new products. Firm level data can provide more accurate information about promotion frequencies, intensities, and types for different brands.

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## 7. APPENDICES

### 7.1. APPENDIX I: QUESTIONNAIRE IN ENGLISH

This questionnaire has been designed with the aim of gathering data for an academic research conducted within the context of Boğazici University Graduate Program in Management. The scope of the research is restricted with non-durable consumer goods; therefore, words such as "product" and "brand" used throughout the questionnaire denotes non-durable consumer goods (foods, beverages, clothing, cosmetics, health care products, personal care products, cleaning products, accessories, newspapers, magazines, etc. ). Completion of the questionnaire to the maximum possible will enhance the reliability of this research. You will not have to indicate your name since overall results are will be analyzed. Thank you very much for your contribution.

1. Have you purchased any consumer non-durable goods on promotion during your recent shoppings?
$\square$ Yes
$\square$ No (Please proceed to question 3 )
2. If you have made such purchases what are the:

|  | Product 1 | Product 2 | Product 3 |
| :--- | :--- | :--- | :--- |
| Product types: |  |  |  |
| Brand names: |  |  |  |
| Promotion types: |  |  |  |

(Please proceed to question 4 )
3. What is the reason for your not purchasing a consumer non-durable good on promotion during your recent shoppings?
4. Please indicate your degree of preference for the following type of sales promotions which will be offered to you by a detergent brand.

| TYPE OF SALES PROMOTION | Strongly <br> Prefer | Prefer | Not <br> Prefer | Strongly <br> Not Prefer |
| :--- | :---: | :---: | :---: | :---: |
| * Contests | 1 | 2 | 3 | 4 |
| * Sweepstakes | 1 | 2 | 3 | 4 |
| * Free sample | 1 | 2 | 3 | 4 |
| * Price discount | 1 | 2 | 3 | 4 |
| * In-pack /On-pack price discount coupon | 1 | 2 | 3 | 4 |
| * Price discount coupon given in newspapers and <br> magazines | 1 | 2 | 3 | 4 |
| * In-pack / On-pack gift | 1 | 2 | 3 | 4 |
| * "Buy two at the price of one", "Buy one, get one <br> free" type promotions | 1 | 2 | 3 | 4 |
| * Money-back guarantee | 1 | 2 | 3 | 4 |
| * Bonus-pack :"20\% extra product for free"" | 1 | 2 | 3 | 4 |
| * Free sports game ticket | 1 | 2 | 3 | 4 |
| * Free movie / theatre / concert ticket | 1 | 2 | 3 | 4 |
| * Other (Please specify:....................................) | 1 | 2 | 3 | 4 |

5. Please indicate your degree of preference for the following type of sales promotions which will be offered to you by a soft-drink brand.

| TYPE OF SALES PROMOTION | Strongly <br> Prefer | Prefer | Not <br> Prefer | Strongly <br> Not Prefer |
| :--- | :---: | :---: | :---: | :---: |
| * Contests | 1 | 2 | 3 | 4 |
| * Sweepstakes | 1 | 2 | 3 | 4 |
| * Free sample | 1 | 2 | 3 | 4 |
| * Price discount | 1 | 2 | 3 | 4 |
| * In-pack / On-pack price discount coupon | 1 | 2 | 3 | 4 |
| * Price discount coupon given in newspapers and <br> magazines | 1 | 2 | 3 | 4 |
| * In-pack / On-pack gift | 1 | 2 | 3 | 4 |
| * "Buy two at the price of one", "Buy one, get one <br> free" type promotions | 1 | 2 | 3 | 4 |
| * Money-back guarantee | 1 | 2 | 3 | 4 |
| * Bonus-pack: "20 \% extra product for free" | 1 | 2 | 3 | 4 |
| * Free sports game ticket | 1 | 2 | 3 | 4 |
| * Free movie / theatre / concert ticket | 1 | 2 | 3 | 4 |
| * Other (Please specify:...................................) | 1 | 2 | 3 | 4 |

6. Please indicate your level of agreement for each of the statements below by circling the corresponding number:

$$
1 \text { = STRONGLY DISAGREE, } 2 \text { = DISAGREE, } 3 \text { = AGREE, } 4 \text { = STRONGLY AGREE }
$$

The words "product", "brand", and "promotions" in the statements below should be evaluated within the context of non-durable consumer-goods.

| STATEMENTS: | Strongly <br> Disagree | Disagree | Agree | Strongly <br> Agree |
| :--- | :---: | :---: | :---: | :---: |
| - I enjoy purchasing promoted products. | 1 | 2 | 3 | 4 |
| - Product quality is as important for me as price. | 1 | 2 | 3 | 4 |
| - I always try to make sure that I am getting my money's <br> worth when I buy products. | 1 | 2 | 3 | 4 |
| - In most product categories, there are certain brands for <br> which I have a definite preference. | 1 | 2 | 3 | 4 |
| - I continue to buy the brand which I have a preference <br> for even when it is not on promotion. | 1 | 2 | 3 | 4 |
| - If the brand I prefer to buy offers a price discount, I <br> buy more than the amount that I usually buy in order to <br> stockpile. | 1 | 2 | 3 | 4 |
| - I would not purchase an unfamiliar brand even if it is <br> on promotion. | 1 | 2 | 3 | 4 |
| - I would prefer that manufacturer firms follow an <br> "everyday low pricing" policy rather than offering <br> occasional promotions. | 1 | 2 | 3 | 4 |


| STATEMENTS: | Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: | :---: |
| - Before purchasing a product, I compare the unit prices of different brands within the same product category. | 1 | 2 | 3 | 4 |
| - If I have abundantly purchased a certain promoted product in my recent shoppings, I do not purchase a similar product before using up my inventory of the product, no matter how attractive its promotional offer might be. | 1 | 2 | 3 | 4 |
| - While I am shopping, a promoted product attracts my attention even if I have not tried that product before. | 1 | 2 | 3 | 4 |
| - If a single brand is promoted in a product category, I buy that single promoted brand. | 1 | 2 | 3 | 4 |
| - If a product is advertised to be on promotion, I would like to see and examine that product. | 1 | 2 | 3 | 4 |
| - I generally buy the same brands I have always bought. | 1 | 2 | 3 | 4 |
| - If I like a brand which I have bought due to its promotion, I stop buying my previous brand and start buying this new brand. | 1 | 2 | 3 | 4 |
| - When I buy promoted products I feel that I am getting my money's worth. | 1 | 2 | 3 | 4 |
| - If the brands I generally buy are not on promotion, I prefer to buy the brands which are promoted. | 1 | 2 | 3 | 4 |
| - I usually know the pre-discount price of the brand that I generally buy. | 1 | 2 | 3 | 4 |
| - I would be suspicious of the quality of a frequently promoted brand. | 1 | 2 | 3 | 4 |
| - Without planning to do so, I may purchase a product just because I like its promotion. | 1 | 2 | 3 | 4 |
| - While I am making payment, I spontaneously decide to buy products located near the cash-point. | 1 | 2 | 3 | 4 |
| - I would prefer that products are sold with no promotions at all. | 1 | 2 | 3 | 4 |
| - If I hear that the brand I frequently buy is on promotion in a store other than the one I usually visit, I would go and buy the product from that other store. | 1 | 2 | 3 | 4 |
| - I might try a brand which I have not tried before, because of its promotion. | 1 | 2 | 3 | 4 |
| - While shopping, I don't pay any attention to the brands other than the ones I frequently purchase. | 1 | 2 | 3 | 4 |
| - If I know that a brand is frequently on promotion, I purchase that brand only when it is on promotion. | 1 | 2 | 3 | 4 |
| - If I see that a brand, which I think is of the same quality as the brand I frequently buy, is cheaper than the brand I frequently buy, then I would buy the cheaper brand. | 1 | 2 | 3 | 4 |


| STATEMENTS: | Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: | :---: |
| - If various brands in the same product category, including the brand that I frequently purchase, are on promotion, I purchase the brand of which I like the promotion. | 1 | 2 | 3 | 4 |
| - I generally shop at the same place. | 1 | 2 | 3 | 4 |
| - Sales promotions contribute financially to those consumers who buy promoted products. | 1 | 2 | 3 | 4 |
| - Even if a brand is indicated to be on discount, I compare the discounted price of the brand with the prices of other brands in the same product category. | 1 | 2 | 3 | 4 |
| - When shopping, if I see that the brand I frequently purchase is on promotion, I decide to buy this brand without having planned to do so. | 1 | 2 | 3 | 4 |
| - I generally prepare a shopping list. | 1 | 2 | 3 | 4 |
| - For some products, when the manufacturer stops offering promotions, I incline towards other brands. | 1 | 2 | 3 | 4 |
| - Even when I find a real good discount on a consumer non-durable, I am careful to buy only as much as I need. | 1 | 2 | 3 | 4 |
| - If I buy a promoted product, I usually also buy its complement (i.e. toothbrush / toothpaste, spaghetti / spaghetti sauce) | 1 | 2 | 3 | 4 |
| - I like variety. | 1 | 2 | 3 | 4 |
| - I am better at shopping for bargains than most people. | 1 | 2 | 3 | 4 |
| - I generally live a planned life. | 1 | 2 | 3 | 4 |
| - I usually spend money without thought. | 1 | 2 | 3 | 4 |
| - I have a lot of knowledge about how to select the best brand within a product class. | 1 | 2 | 3 | 4 |
| - I do not like buying untried products. | 1 | 2 | 3 | 4 |
| - I generally make short-term and long-term plans. | 1 | 2 | 3 | 4 |
| - Even though I like the brands I use, after a while I want to try different brands. | 1 | 2 | 3 | 4 |
| - I like to obtain results in the shortest possible manner. | 1 | 2 | 3 | 4 |
| - I regularly prepare budgets for my expenditures. | 1 | 2 | 3 | 4 |
| - I like trying new things. | 1 | 2 | 3 | 4 |
| - I can make sudden decisions without much thought. | 1 | 2 | 3 | 4 |

7. What is the reason for you to purchase a promoted product? (Please mark one alternative only)
$\square$ I like the promotion offered
$\square$ I see this as an opportunity to buy the product I was intending to buy on promotion
$\square$ It is a product that I buy even when it is not on promotion
$\square$ For other reasons: (Please specify).

| STATEMENTS: | Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: | :---: |
| - If various brands in the same product category, including the brand that I frequently purchase, are on promotion, I purchase the brand of which I like the promotion. | 1 | 2 | 3 | 4 |
| - I generally shop at the same place. | 1 | 2 | 3 | 4 |
| - Sales promotions contribute financially to those consumers who buy promoted products. | 1 | 2 | 3 | 4 |
| - Even if a brand is indicated to be on discount, I compare the discounted price of the brand with the prices of other brands in the same product category. | 1 | 2 | 3 | 4 |
| - When shopping, if I see that the brand I frequently purchase is on promotion, I decide to buy this brand without having planned to do so. | 1 | 2 | 3 | 4 |
| - I generally prepare a shopping list. | 1 | 2 | 3 | 4 |
| - For some products, when the manufacturer stops offering promotions, I incline towards other brands. | 1 | 2 | 3 | 4 |
| - Even when I find a real good discount on a consumer non-durable, I am careful to buy only as much as I need. | 1 | 2 | 3 | 4 |
| - If I buy a promoted product, I usually also buy its complement (i.e. toothbrush / toothpaste, spaghetti / spaghetti sauce) | 1 | 2 | 3 | 4 |
| - I like variety. | 1 | 2 | 3 | 4 |
| - I am better at shopping for bargains than most people. | 1 | 2 | 3 | 4 |
| - I generally live a planned life. | 1 | 2 | 3 | 4 |
| - I usually spend money without thought. | 1 | 2 | 3 | 4 |
| - I have a lot of knowledge about how to select the best brand within a product class. | 1 | 2 | 3 | 4 |
| - I do not like buying untried products. | 1 | 2 | 3 | 4 |
| - I generally make short-term and long-term plans. | 1 | 2 | 3 | 4 |
| - Even though I like the brands I use, after a while I want to try different brands. | 1 | 2 | 3 | 4 |
| - I like to obtain results in the shortest possible manner. | 1 | 2 | 3 | 4 |
| - I regularly prepare budgets for my expenditures. | 1 | 2 | 3 | 4 |
| - I like trying new things. | 1 | 2 | 3 | 4 |
| - I can make sudden decisions without much thought. | 1 | 2 | 3 | 4 |

7. What is the reason for you to purchase a promoted product? (Please mark one alternative only)
$\square$ I like the promotion offered
$\square$ I see this as an opportunity to buy the product I was intending to buy on promotion
$\square$ It is a product that I buy even when it is not on promotion
$\square$ For other reasons: (Please specify).
8. What are the sources through which you are informed about promotions most of the time? (Please mark one alternative only)
$\square$ Mailed brochures and invitations
$\square$ Place of shopping
$\square$ Newspapers and magazines
$\square$ Neighbors / Friends / Relatives
$\square$ TV or radio
$\square$ Other means: ( Please specify)
9. Which one of the two promotions below would you prefer for a 5 kg laundry detergent priced $500,000 \mathrm{TL}$ ?
$\square 100,000 \mathrm{TL}$ price reduction
$\square 100,000 \mathrm{TL}$ worth of extra laundry detergent for free
10. For the different products listed below what is the minimum percentage of discount which would increase the likelihood for you to purchase that product? (Please specify separately next to each product).

- Shoes
- Tea.
- Chocolate
- Deodorant.
- Detergent.
- Carbonated drinks (cola, soda, etc.)
- Clothing
- Paper tissues.
- Coffee.
- Margarine.
- Fruit juice.
- Milk.
- Fresh fruits
- Tuna fish (canned)
- Olive oil
- Shampoo.

11. What are the newspapers that you regularly read: $\qquad$
12. Do you clip coupons for the promotions that these newspapers offer?
$\square$ Yes $\square$ No
13. Would you consider changing your newspaper because of the promotions offered?
$\square$ Yes $\square$ No
14. Your gender:
$\square$ Female $\square$ Male
15. Please mark the age group that you belong to:
$\square 20$ and below
$\square$ 21-30
$\square$ 31-40
$\square$ 41-50
$\square$ 51-60
$\square$ Above 60
16. What is your marital status?
$\square$ Single
$\square$ Married $\rightarrow$ For how many years?
$\square$ Widowed
$\square$ Divorced
17. How many children do you have?
18. What are the ages of your children? $\qquad$
19. Education level (Latest graduation) :
$\square$ Literate
$\square$ Primary school
$\square$ Secondary school
$\square$ High school
$\square$ University
$\square$ Other (Please specify ):
20. Your occupation:
21. How many people live in your household including you?
22. What is the mode of transportation that you usually use when going shopping?
$\square$ Own car
$\square$ Taxi
$\square$ "Dolmuş"
$\square$ Public bus
$\square$ I walk
$\square$ Other (Please specify ) : $\qquad$
23. What is the average net monthly income of your household?
$\square 15,000,000 \mathrm{TL}$ and below
$\square$ 15,000,001-25,000,000 TL
$\square$ 25,000,001-50,000,000 TL
$\square$ 50,000,001-75,000,000 TL
$\square 75,000,001-100,000,000 \mathrm{TL}$
$\square 100,000,001-125,000,000 \mathrm{TL}$
$\square 125,000,001-150,000,000 \mathrm{TL}$
$\square 150,000,001$ - 175,000,000 TL
$\square 175,000,001$ - 200,000,000 TL
$\square 200,000,001 \mathrm{TL}$ and above

### 7.2. APPENDIX II: QUESTIONNAIRE IN TURKISH

Bu anket, Boğazici Üniversitesi İsletme Yüksek Lisans Programı çerçevesinde yapılan akadem bir çalışma için veri toplamak amacıyla düzenlenmiştir. Anketin kapsamı dayanıksız tüketim malları sınırlandırıldığı için, anket boyunca kullanılan "ürün" ve "marka" sözcükleri dayanıksız tüket malların ( yiyecek, içecek, giyecek, kozmetik ürünleri, sağlı ve kişisel bakım ürünleri, temiz malzemeleri, aksesuarlar, gazete, dergi vb. ) ifade etmektedir. Anketi mümkün olduğunca eksik doldurmanız araştırmanın güvenilirliğini arttıracaktır. Sonuçlar genel olarak değerlendirileceğinden is belirtmeniz gerekmemektedir. İlgi ve katkılarınız için çok teșekkür ederiz.

1. Son alış-verişlerinizde promosyonlu dayanıksız tüketim malı / mallanı satın aldınız mı?
$\square$ Evet $\square$ Hayır (Lütfen 3. soruya geçiniz)
2. Eğer aldıysanız:

|  | 1. Ürün | 2. Ürün | 3. Ürün |
| :--- | :---: | :---: | :---: |
| Ürün adları: |  |  |  |
| Ürün markalar!: |  |  |  |
| Promosyon türleri: |  |  |  |

(Lütfen 4. soruya geçiniz )
3. Son alışverişlerinizde promosyonlu bir dayanıksız tüketim malı satın almamanızın sebebi nedir?
4. Bir deterian firmasının size sunabileceği aşağıdaki farklı promosyon çeşitlerini tercih derecenizi belirtiniz.

| PROMOSYON ÇEŞITLERİ: | Kesinlikle Tercih Etmem | Tercih <br> Etmem | Tercih Ederim | Kesinlikle Tercih Ederim |
| :---: | :---: | :---: | :---: | :---: |
| * Yarışalar ( Dereceye girene büyük ödùl verilen tür) | 1 | 2 | 3 | 4 |
| * Çekilişler / İkramiyeler (Kupon, kapak, etiket,vb. yollayarak katilinan, kura ile hediye, para, tatil,vb. kazanlan tür) | 1 | 2 | 3 | 4 |
| * Ücretsiz numuneler | 1 | 2 | 3 | 4 |
| * Fiyat indirimi | 1 | 2 | 3 | 4 |
| * Ürün paketinde bulunan fiyat indirim kuponu | 1 | 2 | 3 | 4 |
| * Gazete / dergilerin verdiği fiyat indirim kuponu | 1 | 2 | 3 | 4 |
| * Ürünle birlikte verilen hediye | 1 | 2 | 3 | 4 |
| "İki yerine bir öde" / "Bir tane alana ikincisi bedava" türü promosyonlar | 1 | 2 | 3 | 4 |
| * "Deneyin, beğenmezseniz ürünü geri alıyoruz" türü promosyonlar | 1 | 2 | 3 | 4 |
| * "Aymı fiyata \%20 daha fazla ürün" gibi promosyonlar | 1 | 2 | 3 | 4 |
| * Bedava maç bileti | 1 | 2 | 3 | 4 |
| * Bedava sinema / tiyatro / konser bileti | 1 | 2 | 3 | 4 |
| * Diğer (Lütfen belirtiniz:........................................) | 1 | 2 | 3 | 4 |

5. Bir mesrubat firmasının size sunabileceği aşağıdaki farklı promosyon çeşitlerini tercih derecenizi belirtiniz.

| PROMOSYON ÇEŞITLERİ: | Kesinlikle <br> Tercih <br> Etmem | Tercih <br> Etmem | Tercih <br> Ederim | Kesinlikle <br> Tercih <br> Ederim |
| :--- | :---: | :---: | :---: | :---: |
| * Yarışmalar (Dereceye girene büyük ödül verilen tür) | 1 | 2 | 3 | 4 |
| * Çekilişler / İkramiyeler (Kupon, kapak,etiket,vb. yollayarak <br> katllınan, kura ile hediye, para, tatil, vb. kazanllan tür) | 1 | 2 | 3 | 4 |
| * Ücretsiz numuneler | 1 | 2 | 3 | 4 |
| * Fiyat indirimi | 1 | 2 | 3 | 4 |
| * Ürün paketinde bulunan fiyat indirim kuponu | 1 | 2 | 3 | 4 |
| * Gazete / dergilerin verdiği fiyat indirim kuponu | 1 | 2 | 3 | 4 |
| * Ürünle birlikte verilen hediye | 1 | 2 | 3 | 4 |
| * "İki yerine bir öde" / "Bir tane alana ikincisi <br> bedava" türü promosyonlar | 1 | 2 | 3 | 4 |
| * "Deneyin, beğenmezseniz ürünü geri alıyoruz" türü <br> promosyonlar | 1 | 2 | 3 | 4 |
| * "Aynı fiyata \%20 daha fazla ürün" gibi promosyonlar | 1 | 2 | 3 | 4 |
| * Bedava maç bileti | 1 | 2 | 3 | 4 |
| * Bedava sinema / tiyatro / konser bileti | 1 | 2 | 3 | 4 |
| * Diğer ( Lütfen belirtiniz:..........................................) | 1 | 2 | 3 | 4 |

6. Aşağıdaki ifadelere / görüşlere katılım durumunuzu
```
1 = KESINLIKLE KATLLMIYORUM, 2 = KATILMIYORUM, 3 = KATILIYORUM, 4 = KESİNLIKLE KATILIYORUM
```

sayılarından birini daire içine alarak belirtiniz. İfadelerde / görüşlerde belirtilen ürün, marka ve promosyon sözcükleri dayanıksız tüketim mallarını kapsamaktadır.

| IFADELER / GÖRÜŞLER : | Kesinlikle Katilmuyorum | Katlmuyorum | Kathyorum | Kesinlikle Katillyoru |
| :---: | :---: | :---: | :---: | :---: |
| - Promosyonlu ürünler almak hoşuma gider. | 1 | 2 | 3 | 4 |
| - Ürünün kalitesi benim icin fiyatı kadar önemlidir. | 1 | 2 | 3 | 4 |
| - Verdiğim paranın karşlığını almaya herzaman çaba gösteririm. | 1 | 2 | 3 | 4 |
| - Çoğu ürün kategorisinde kesinlikle tercih ettiğim belirli markalar vardır ve sadece bu belirli markaları satın alırm. | 1 | 2 | 3 | 4 |
| - Tercih ettiğim markayı prosmosyon yapmadığı zamanlarda da satın alııım. | 1 | 2 | 3 | 4 |
| - Tercih ettiğim marka eğer fiyat indirimi yapmışsa, o üründen herzaman aldığımdan daha fazla miktarda alip, stoklarım. | 1 | 2 | 3 | 4 |
| - Daha önce markasını duymadığım bir ürünü promosyonlu olsa bile almam. | 1 | 2 | 3 | 4 |
| - Firmalarn zaman zaman promosyon yapmalarndansa "herzaman ucuz fiyat" politikası izlemelerini tercih ederim. | 1 | 2 | 3 | 4 |


| İFADELER / GÖRÜŞLER | $\begin{gathered} \text { Kesinlikle } \\ \text { Katilmyorum } \end{gathered}$ | Katlmy ${ }^{\text {arum }}$ | Katilyorum | Kesinlikle Kathyorur |
| :---: | :---: | :---: | :---: | :---: |
| - Satın almadan önce, aynı ürün kategorisindeki farkh markaların birim fiyatlanın karşlaştırım. | 1 | 2 | 3 | 4 |
| - Daha önce promosyonlu bir üründen fazla miktarda satın almışsam, elimdeki ürünleri tüketmeden, ne kadar cazip olursa olsun, aynı tür bir ürünü sırf promosyonlu olduğu için satın almam. | 1 | 2 | 3 | 4 |
| - Alış-veriş esnasında, daha önce kullanmamış olsam da, promosyonlu bir ürün ilgimi çeker. | 1 | 2 | 3 | 4 |
| - Eğer aynı ürün kategorisinde tek bir marka promosyonluysa, onu satın alırım. | 1 | 2 | 3 | 4 |
| - Eğer bir reklamda bir ürünün promosyonda olduğu belirtiliyorsa, o ürünü görüp incelemek isterim. | 1 | 2 | 3 | 4 |
| - Alss-verişlerimde aynı markalan satın alınm. | 1 | 2 | 3 | 4 |
| - Promosyonlu olduğu için ilk defa satın aldığım bir marka hoşuma giderse, daha önce satın aldığım markayı bırakır, bu markayı satın alırım. | 1 | 2 | 3 | 4 |
| - Promosyonlu ürünler satın aldığımda paramı iyi bir şekilde kullandığımı hissederim. | 1 | 2 | 3 | 4 |
| - Genellikle satın aldığım markalar promosyonlu olmadığında, çoğu kez o anda promosyonlu olan markaları tercih ederim. | 1 | 2 | 3 | 4 |
| - Çoğunlukla satın aldığım markamın fiyat indirimi yapmadan önceki fiyatın bilirim. | 1 | 2 | 3 | 4 |
| - Çok sık promosyon yapan bir markanın kalitesinden șüphe ederim. | 1 | 2 | 3 | 4 |
| - Sirf promosyonu hoşuma gittiği için daha önce almayı planlamadığım bir ürünü satņ alırım. | 1 | 2 | 3 | 4 |
| - Ödeme sırasında kasanın yanında veya yakınında bulunan ürünleri, o anda karar verip alırım. | 1 | 2 | 3 | 4 |
| - Ürünlerin hiç promosyonsuz satılmasını tercih ederim. | 1 | 2 | 3 | 4 |
| - Çoğunlukla satın aldığım markamın, genellikle alış-veriş ettiğim yer dışında bir yerde promosyonlu olduğunu duyarsam, ürünü oradan satın alırm. | 1 | 2 | 3 | 4 |
| - Daha önce hiç denemediğim bir markayı promosyonlu olduğu için deneyebilirim. | 1 | 2 | 3 | 4 |
| - Alış-veriş esnasında, çoğunlukla satın aldığım markamın dışındaki markalara hiç dikkat etmem. | 1 | 2 | 3 | 4 |
| - Sık sık promosyon yaptığını bildiğim bir markayı, sadece promosyonlu olduğu zaman satın alırım. | 1 | 2 | 3 | 4 |
| Çoğunlukla satın aldığım markamla aynı kalitede olduğunu düşündüğüm bir markanın, daha ucuz olduğunu görürsem, kendi markam yerine onu alırım. | 1 | 2 | 3 | 4 |
| - Aralarında favori markamın da bulunduğu aymı kategorideki bir çok marka promosyonda ise içlerinden promosyonu en çok hoşuma gideni satın alırım. | 1 | 2 | 3 | 4 |
| - Alış-verişlerimi genellikle aynı yerden yaparım. | 1 | 2 | 3 | 4 |
| - Satış promosyonlari, promosyonlu ürünler alan tüketicilerin bütçesine katkıda bulunur. | 1 | 2 | 3 | 4 |


| İFADELER / GÖRÜŞLER | Kesinlikle Katlmuyorum | Katimyorum | Kathlyorum | $\underset{\substack{\text { Kesinlikle } \\ \text { Katilyorum }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: |
| - Bir ürünün fiyatının indirilmiş olduğu belirtilse de, o ürünün indirimli fiyatını, aynı kategorideki diğer markalarınkiyle karşılaştırırım. | 1 | 2 | 3 | 4 |
| - Alışverişe gittiğimde çoğunlukla satın aldığım bir markanın promosyonda olduğunu görürsem, almayı önceden planlamamış olsam da, o anda satın alırım. | 1 | 2 | 3 | 4 |
| - Genelde bir alış-veriş listesi hazırlarım. | 1 | 2 | 3 | 4 |
| - Bazı ürünler için, üretici firma promosyon yapmayı durdurursa, diğer markalara yönelirim. | 1 | 2 | 3 | 4 |
| - Bir dayanıksız tüketim malının fiyatında çok iyi bir indirim yapılmıs olsa bile, ihtiyacım olduğu kadar almaya dikkat ederim. | 1 | 2 | 3 | 4 |
| - Eğer promosyonlu bir ürün satın almışam, çoğu zaman o ürünün tamamlayıcısını da ( diş firçası / diş macunu, makarna / makarna sosu gibi) satın alınm. | 1 | 2 | 3 | 4 |
| - Değişik şeyler hoşuma gider. | 1 | 2 | 3 | 4 |
| - Ben alış-veriş sırasında firsatları değerlendirme konusunda çoğu insandan daha iyiyim. | 1 | 2 | 3 | 4 |
| - Genellikle planlı-programlı yaşayan bir insanım. | 1 | 2 | 3 | 4 |
| - Coğu zaman düşünmeden para harcanm. | 1 | 2 | 3 | 4 |
| - Herhangi bir ürün kategorisi içindeki en iyi markayı seçmekte oldukça bilgiliyim | 1 | 2 | 3 | 4 |
| - Denenmemiş bir şeyi satın almaktan hoşlanmam. | 1 | 2 | 3 | 4 |
| - Coğunlukla kısa ve uzun vadeli planlama yaparım. | 1 | 2 | 3 | 4 |
| - Kullandığım markalar hoşuma gitse de, bir süre sonra farklı markaları denemek isterim. | 1 | 2 | 3 | 4 |
| - Sonuca en kısa yoldan ulaşmayı isterim. | 1 | 2 | 3 | 4 |
| - Harcamalarım için düzenli olarak bütçe oluştururum. | 1 | 2 | 3 | 4 |
| - Yeni çıkan şeyleri denemekten hoslanırım. | 1 | 2 | 3 | 4 |
| - Üstünde fazla düșünmeden, ani kararlar verebilirim. | 1 | 2 | 3 | 4 |

7. Promosyonlu ürünleri en çok hangi amaçla satın alıyorsunuz? (Lütfen bir şıkkı işaretleyiniz.)Promosyonu hoşuma gittiği için
$\square$
İleride almayı düşündüğüm bir ürünü promosyonlu olarak alma firsatımı bulduğum için
$\square$
Promosyon yapmadığı zamanlarda da satın aldığım bir ürün olduğu için
$\square$ Diğer bir amaçla : (Lütfen belirtiniz).
8. Promosyonları en çok ne şekilde öğrenirsiniz ? (Lütfen bir şıkkı işaretleyiniz.)
$\square$ Adresime postalanan broşür ve davetiyelerden
$\square$ Alış-veriş yaptığım yere gittiğimde
$\square$ Gazete ve dergilerden
$\square$ Komşularımdan /Arkadaşlarımdan / Akrabalanımdan
$\square$ Televizyon ya da radyodan
$\square$ Diğer yollardan : (Lütfen belirtiniz).
9. Değeri $500,000 \mathrm{TL}$ olan 5 kilogramlık bir kutu çamaşır deterjanı için aşağıda belirtilen iki farkh promosyondan hangisini tercih edersiniz?
$\square 100,000$ TL'lik fiyat indirimi
$\square$ Aynı fiyata 100,000 TL'lik ilave çamaşır deterjanı
10. Aşağıdaki farklı ürünler için, en az yüzde kaclık bir indirim sizin o ürünü alma şansınızı artırır? (Lütfen her ürünün yanına belirtiniz ).

- Ayakkabı.
- Çay
- Çikolota
- Deodorant.
- Deterjan
- Gazlu içecekler (kola ,gazoz, soda vb)
- Giysi.
- Kağıt mendil.
- Kahve
- Margarin
- Meyvesuyu.
- Süt.
- Taze Meyveler.
- Ton Balığı (konserve)
- Zeytinyağı.
- Şampuan.

11. Devamlı okuduğunuz gazete(ler) :
12. Bu gazetenin/gazetelerin yaptığı promosyonlar için kupon biriktiriyor musunuz?
$\square$ Evet
$\square$ Hayır
13. Gazetenizi sunulan promosyonlar yüzünden değiştirmeyi düşünür müsünüz?
$\square$ Evet $\square$ Hayr
14. Cinsiyetiniz :
$\square$ Kadın $\square$ Erkek
15. Yaş grubunuzu işaretleyiniz.
$\square 20$ ve altı
21-30
$\square 31-40$
$\square$ 41-50
$\square$ 51-60
$\square 60$ üstü
16. Medeni durumunuzu belirtiniz.
$\square$ Bekar
$\square$ Evli $\rightarrow$ Kaç yıllık?
$\square$ Dul
$\square$ Boşanmış
17. Kaç çocuğunuz var?
18. Çocuğunuzun / çocuklarınızın yaş(lar)ı nedir?
19. Eğitim durumunuz (Son mezun olduğunuz okul) :
$\square$ Okur- yazar
$\square$ İlkokul
$\square$ Ortaokul
$\square$ Lise
$\square$ Üniversite
$\square$ Diğer (Lütfen belirtiniz):
20. Mesleğiniz : $\qquad$
21. Hanenizde siz dahil kaç kişi bulunuyor?
22. Alş̧veriş yerine gidip dönerken genellikle hangi vasıtayı kullanıyorsunuz?
$\square$ Kendi otomobilim
$\square$ Taksi
$\square$ Dolmuş
$\square$ Otobüs
$\square$ Yürürüm
$\square$ Diğer (Lütfen belirtiniz) :
23. Ortalama net aylık hanehalkı gelirinizi işaretleyiniz.
$\square \quad 15,000,000 \mathrm{TL}$ ve altı
$\square \quad 15,000,001-25,000,000 \mathrm{TL}$
$\square \quad 25,000,001-50,000,000 \mathrm{TL}$
$\square \quad 50,000,001-75,000,000 \mathrm{TL}$
$\square \quad 75,000,001-100,000,000 \mathrm{TL}$
$\square 100,000,001-125,000,000 \mathrm{TL}$
$\square 125,000,001-150,000,000 \mathrm{TL}$
$\square 150,000,001-175,000,000 \mathrm{TL}$
$\square$ 175,000,001 - 200,000,000 TL
$\square$ 200,000,001 TL ve üstü

### 7.3. APPENDIX III: CODING FORMAT

| $\begin{array}{\|l\|} \hline \text { Col. } \\ \text { No. } \\ \hline \end{array}$ | Ques. <br> No. | Var. Name | Variable Definition | Scale | Coding Specificaitons |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{1}$ | 1 | V1 | Purchasing promoted products | Nominal | $1=\mathrm{Yes} 2=\mathrm{No}$ |
| 2 | 2 | V2 | Type of first promoted product purchased | Nominal | $0=$ Not applicable <br> $1=$ Detergents \& household cleaning <br> $2=$ Personal care products <br> 3 = Foods <br> $4=$ Beverages <br> $5=$ Clothing <br> $6=$ Cosmetics <br> 7 = Newspapers \& magazines <br> $8=$ Other |
| 3 | 2 | V3 | Type of promotion offered for first product | Nominal | $1=$ Contest <br> $2=$ Sweepstakes <br> 3 = Free sample <br> 4 = Price Discount <br> $5=$ On-pack discount coupon <br> $6=$ Media distributed discount coupon <br> 7 = Gift <br> $8=$ Buy 1 get 1 free <br> $9=$ Money-back guarantee <br> $10=$ Free extra product <br> $11=$ Free game ticket <br> $12=$ Free social event ticket <br> $13=$ Other |
| 4 | 2 | V4 | Type of second promoted product purchased | Nominal | ```\(0=\) Not applicable \(1=\) Detergents \& household cleaning \(2=\) Personal care products 3 = Foods \(4=\) Beverages \(5=\) Clothing \(6=\) Cosmetics 7 = Newspapers \& magazines \(8=\) Other``` |
| 5 | 2 | V5 | Type of promotion offered for second product | Nominal | $1=$ Contest <br> $2=$ Sweepstakes <br> 3 = Free sample <br> $4=$ Price Discount <br> $5=$ On-pack discount coupon <br> $6=$ Media distributed discount coupon <br> 7 = Gift <br> $8=$ Buy 1 get 1 free <br> $9=$ Money-back guarantee <br> $10=$ Free extra product <br> 11 = Free game ticket <br> $12=$ Free social event ticket <br> $13=$ Other |


| 6 | 2 | V6 | Type of third promoted product purchased | Nominal | $0=$ Not applicable <br> 1= Detergents \& household cleaning <br> $2=$ Personal care products <br> 3 = Foods <br> $4=$ Beverages <br> $5=$ Clothing <br> $6=$ Cosmetics <br> $7=$ Newspapers \& magazines <br> $8=$ Other |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 2 | V7 | Type of promotion offered for third product | Nominal | $1=$ Contest <br> $2=$ Sweepstakes <br> $3=$ Free sample <br> $4=$ Price Discount <br> $5=$ On-pack discount coupon <br> $6=$ Media distributed discount coupon <br> $7=\mathrm{Gift}$ <br> $8=$ Buy 1 get 1 free <br> $9=$ Money-back guarantee <br> $10=$ Free extra product <br> $11=$ Free game ticket <br> $12=$ Free social event ticket <br> $13=$ Other |
| 8 | 3 | V8 | Reason for not purchasing promoted product | Nominal | $0=$ Not applicable <br> $1=$ No trust <br> $2=$ Have not come across $/$ noticed <br> $3=$ Have not shopped recently <br> 4 = Promoted products are expensive <br> $5=$ Oppose to buy promoted products <br> $6=$ Promotions not attractive enough <br> $7=$ Preferred brand not promoted <br> $8=$ Not in need of promoted products <br> $9=$ Other reason |
| 9 | 4 | V9 | Preference for contests (detergent brand) | Interval | $1=$ Strongly not prefer <br> $2=$ Not prefer <br> 3 = Prefer <br> 4 = Strongly prefer |
| 10 | 4 | V10 | Preference for sweepstakes (detergent brand) | Interval |  |
| 11 | 4 | V11 | Preference for free samples (detergent brand) | Interval |  |
| 12 | 4 | V12 | Preference for price discounts (detergent brand) | Interval |  |
| 13 | 4 | V13 | Preference for on-pack discount coupons (detergent brand) | Interval |  |
| 14 | 4 | V14 | Preference for discount coupons given in newspapers \& magazines (detergent brand) | Interval |  |
| 15 | 4 | V15 | Preference for on-pack / inpack gifts (detergent brand) | Interval |  |


| 16 | 4 | V16 | Preference for "buy 1 , get 1 free" promotions (detergent brand) | Interval | $\begin{aligned} & 1=\text { Strongly not prefer } \\ & 2=\text { Not prefer } \\ & 3=\text { Prefer } \\ & 4=\text { Strongly prefer } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | 4 | V17 | Preference for money-back guarantees (detergent brand) | Interval |  |
| 18 | 4 | V18 | Preference for " $20 \%$ extra product for free" promotions (detergent brand) | Interval |  |
| 19 | 4 | V19 | Preference for free sports game tickets (detergent brand) | Interval |  |
| 20 | 4 | V20 | Preference for movie / theatre / concert tickets (detergent brand) | Interval |  |
| 21 | 4 | V21 | Preference for other type of promotions (detergent brand) | Interval |  |
| 22 | 5 | V22 | Preference for contests (softdrink brand) | Interval | $\begin{aligned} & 1=\text { Strongly not prefer } \\ & 2=\text { Not prefer } \\ & 3=\text { Prefer } \\ & 4=\text { Strongly prefer } \end{aligned}$ |
| 23 | 5 | V23 | Preference for sweepstakes (soft-drink brand) | Interval |  |
| 24 | 5 | V24 | Preference for free samples (soff-drink brand) | Interval |  |
| 25 | 5 | V25 | Preference for price discounts (soft-drink brand) | Interval |  |
| 26 | 5 | V26 | Preference for on-pack discount coupons (soft-drink brand) | Interval |  |
| 27 | 5 | V27 | Preference for discount coupons given in newspapers \& magazines (soft-drink brand) | Interval |  |
| 28 | 5 | V28 | Preference for on-pack / inpack gifts (soft-drink brand) | Interval |  |
| 29 | 5 | V29 | Preference for "buy 1 , get 1 free" promotions (soft-drink brand) | Interval |  |
| 30 | 5 | V30 | Preference for money-back guarantees (soft-drink brand) | Interval |  |
| 31 | 5 | V31 | Preference for " $20 \%$ extra product for free" promotions (soft-drink brand) | Interval |  |
| 32 | 5 | V32 | Preference for free sports game tickets (soft-drink brand) | Interval |  |
| 33 | 5 | V33 | Preference for movie / theatre / concert tickets (soft-drink brand) | Interval |  |
| 34 | 5 | V34 | Preference for other type of promotions (soft-drink brand) | Interval |  |
| 35 | 6 | V35 | Deal Proneness | Interval | $\begin{aligned} & 1=\text { Strongly disagree } \\ & 2=\text { Disagree } \\ & 3=\text { Agree } \\ & 4=\text { Strongly agree } \end{aligned}$ |
| 36 | 6 | V36 | Value Consciousness | Interval |  |
| 37 | 6 | V37 | Value Consciousness | Interval |  |
| 38 | 6 | V38 | Brand Loyalty | Interval |  |


| 39 | 6 | V39 | Purchase Of Preferred Brand When Not Promoted | Interval | $\begin{aligned} & 1=\text { Strongly disagree } \\ & 2=\text { Disagree } \\ & 3=\text { Agree } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | 6 | V40 | Stockpiling | Interval |  |
| 41 | 6 | V41 | Purchasing Unfamiliar Brands On Promotion | Interval |  |
| 42 | 6 | V42 | Preference For "Every Day Low Pricing" | Interval |  |
| 43 | 6 | V43 | Comparison Shopping | Interval |  |
| 44 | 6 | V44 | Response To Promotions When There Is Inventory In Hand | Interval |  |
| 45 | 6 | V45 | Attention To Promoted Products | Interval |  |
| 46 | 6 | V46 | Purchasing The Single Brand On Promotion | Interval |  |
| 47 | 6 | V47 | Being Responsive To The Advertisements Of Promoted Products | Interval |  |
| 48 | 6 | V48 | Brand Loyalty | Interval |  |
| 49 | 6 | V49 | Switching To A Brand After The First Time Purchase On Promotion | Interval |  |
| 50 | 6 | V50 | Having "Smart Shopper" Feelings When Purchasing Promoted Products | Interval |  |
| 51 | 6 | V51 | Response To Promotions When Frequently Purchased Brand Is Not On Promotion | Interval |  |
| 52 | 6 | V52 | Knowledge Of Pre-Promotion Price | Interval |  |
| 53 | 6 | V53 | Evaluation Of Frequently Promoted Brands | terval |  |
| 54 | 6 | V54 | Unplanned Purchase Of A Product Because Its Promotion Is Liked | Interval |  |
| 55 | 6 | V55 | Impulse-Buying | Interval |  |
| 56 | 6 | V56 | Negative Attitudes Towards Promotions | Interval |  |
| 57 | 6 | V57 | Store Loyalty | Interval |  |
| 58 | 6 | V58 | Trial Of An Unfamiliar Brand Due To Its Promotion | Interval |  |
| 59 | 6 | V59 | Selective Attention To Frequently Purchased Brands | Interval |  |
| 60 | 6 | V60 | Purchase Of A Brand Only When Promoted | Interval |  |
| 61 | 6 | V61 | Brand Substitution Due To Availability Of A Lower Price Brand | Interval |  |
| 62 | 6 | V62 | Purchase Of A Brand Due To Its Promotion | Interval |  |
| 63 | 6 | V63 | Store Loyalty | Interval |  |
| 64 | 6 | V64 | Evaluation Of Promotions | Interval |  |
| 65 | 6 | V65 | Comparison Of Discounted Price Of A Brand With Other Brands | Interval |  |

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| 66 | 6 | V66 | Unplanned Purchase Of A Frequently Purchased Brand Due To Its Promotion | Interval | $\begin{aligned} & 1=\text { Strongly disagree } \\ & 2=\text { Disagree } \\ & 3=\text { Agree } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 67 | 6 | V67 | Preparation Of A Shopping List | Interval |  |
| 68 | 6 | V68 | Brand Substitution Due To Deal Retraction | Interval |  |
| 69 | 6 | V69 | Marginal Utility | Interval |  |
| 70 | 6 | V70 | Complementary Purchase | Interval |  |
| 71 | 6 | V71 | Variety-Seeking | Interval |  |
| 72 | 6 | V72 | Shopping Competitiveness | Interval |  |
| 73 | 6 | V73 | Ability To Plan Ahead | Interval |  |
| 74 | 6 | V74 | Extravagance | Interval |  |
| 75 | 6 | V75 | Product Knowledge | Interval |  |
| 76 | 6 | V76 | Liberalism Vs. Conservatism | Interval |  |
| 77 | 6 | V77 | Ability To Plan Ahead | Interval |  |
| 78 | 6 | V78 | Variety-Seeking | Interval |  |
| 79 | 6 | V79 | Impatience | Interval |  |
| 80 | 6 | V80 | Budgeting | Interval |  |
| 81 | 6 | V81 | Liberalism Vs. Conservatism | Interval |  |
| 82 | 6 | V82 | Impulsiveness | Interval |  |
| 83 | 7 | V83 | Reason for purchasing promoted products | Nominal | $1=$ Promotion liked <br> $2=$ Purchase acceleration / <br> Forward buying <br> $3=$ Regularly purchased brand <br> $4=$ Other reason |
| 84 | 8 | V84 | Source through which promotions are learned | Nominal | $1=$ Mailed brochures <br> $2=$ Place of shopping <br> $3=$ Newspapers \& Magazines <br> 4 = Neighbors, friends, relatives <br> $5=T V$, radio <br> $6=$ Other source |
| 85 | 9 | V85 | Preference for price-discount versus free extra product | Nominal | $1=$ Prefers price-discount <br> $2=$ Prefers free-extra product |
| 86 | 10 | V86 | Threshold discount level for shoes | Ratio |  |
| 87 | 10 | V87 | Threshold discount level for tea | Ratio |  |
| 88 | 10 | V88 | Threshold discount level for chocolate | Ratio |  |
| 89 | 10 | V89 | Threshold discount level for deodorant | Ratio |  |
| 90 | 10 | V90 | Threshold discount level for detergent | Ratio |  |
| 91 | 10 | V91 | Threshold discount level for carbonated soft-drinks | Ratio |  |
| 92 | 10 | V92 | Threshold discount level for clothes | Ratio |  |
| 93 | 10 | V93 | Threshold discount level for paper tissues | Ratio |  |
| 94 | 10 | V94 | Threshold discount level for coffee | Ratio |  |
| 95 | 10 | V95 | Threshold discount level for margarine | Ratio |  |
| 96 | 10 | V96 | Threshold discount level for fruit juice | Ratio |  |


| 97 | 10 | V97 | Threshold discount level for milk | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 98 | 10 | V98 | Threshold discount level for fresh fruits | Ratio |  |
| 99 | 10 | V99 | Threshold discount level for canned tuna fish | Ratio |  |
| 100 | 10 | V100 | Threshold discount level for olive oil | Ratio |  |
| 101 | 10 | V101 | Threshold discount level for hair shampoo | Ratio |  |
| 102 | 11 | V102 | Number of newspapers read | Ratio | $\begin{aligned} & \text { Ordinalized. } \\ & 0=\text { None } \\ & 1=\text { One } \\ & 2=\text { Two } \\ & 3=\text { Three or more } \end{aligned}$ |
| 103 | 12 | V103 | Coupon clipping from newspapers | Nominal | $\begin{aligned} & 1=\text { Clips } \\ & 2=\text { Does not clip } \end{aligned}$ |
| 104 | 13 | V104 | Switching newspapers due to promotions offered | Nominal | $\begin{aligned} & 1=\text { Switches } \\ & 2=\text { Does not switch } \end{aligned}$ |
| 105 | 14 | V105 | Gender | Nominal | $\begin{aligned} & 1=\text { Female } \\ & 2=\text { Male } \end{aligned}$ |
| 106 | 15 | V106 | Age | Ordinal | $\begin{aligned} & 1=20 \text { and below } \\ & 2=\text { Between } 21-30 \\ & 3=\text { Between } 31-40 \\ & 4=\text { Between } 41-50 \\ & 5=\text { Between } 51-60 \\ & 6=\text { Above } 60 \end{aligned}$ |
| 107 | 16 | V107 | Marital status | Nominal | $\begin{aligned} & 1=\text { Single } \\ & 2=\text { Married } \\ & 3=\text { Widowed } \\ & 4=\text { Divorced } \end{aligned}$ |
| 108 | 16 | V108 | Years of marriage | Ratio |  |
| 109 | 17 | V109 | Number of children | Ratio |  |
| 110 | 18 | V110 | Number of children under 6 | Ratio |  |
| 111 | 19 | V111 | Education level | Ordinal | $\begin{aligned} & 1=\text { Literate } \\ & 2=\text { Primary school } \\ & 3=\text { Secondary school } \\ & 4=\text { High school } \\ & 5=\text { University or above } \\ & 6=\text { Other } \end{aligned}$ |
| 112 | 20 | V112 | Occupation | Nominal | $\begin{aligned} & 1=\text { Manager/ Economist } \\ & 2=\text { Engineer } / \text { Architect } \\ & 3=\text { University Faculty Member } \\ & 4=\text { Health Service Employee } \\ & 5=\text { Tourism Employee } \\ & 6=\text { Works in a Bank } \\ & 7=\text { Merchant } / \text { Trader } \\ & 8=\text { Works in Media } \\ & 9=\text { Housewife } \\ & 10=\text { Student } \\ & 11=\text { Retired } \\ & 12=\text { Other } \end{aligned}$ |
| 113 | 21 | V113 | Household size | Ratio |  |
| 114 | 22 | V114 | Mode of transportation to the place of shopping | Nominal | $\begin{aligned} & 1=\text { Own car } \\ & 2=\text { Taxi } \\ & 3=\text { "Dolmus" } \\ & 4=\text { Public bus } \\ & 5=\text { Walks } \\ & 6=\text { Other } \end{aligned}$ |


| 115 | 23 | V115 | Monthly net household income | Ordinal | $1=15$ million TL and below <br> $2=15,000,001-25$ million TL <br> $3=25,000,001-50$ million TL <br> $4=50,000,001-75$ million TL <br> $5=75,000,001-100$ million TL <br> $6=100,000,001-125$ million TL <br> $7=125,000,00-150$ million TL <br> $8=150,000,001-175$ million TL <br> $9=175,000,001-200$ million TL <br> $10=200,000,001 \mathrm{TL}$ and above |
| :---: | :---: | :---: | :---: | :---: | :---: |

### 7.4 APPENDIX IV: RESULTS OF THE RESEARCH HYPOTHESES TESTED

| HYPOTHESIS | SUB-HYPOTHESIS | RESULT |
| :---: | :---: | :---: |
| Hypothesis 1 | H (1.1) | Accepted |
|  | $\mathrm{H}(1.2)-\mathrm{H}(1.11)$ | Rejected |
|  | H (1.12) | Accepted |
|  | H (1.13) - H (1.17) | Rejected |
|  | H (1.18) | Accepted |
|  | H (1.19) - H (1.25) | Rejected |
|  | H (1.26) | Accepted |
|  | H (1.26) - H (1.43) | Rejected |
| Hypothesis 2 | H (2.1) - H (2.3) | Rejected |
|  | H (2.4) | Accepted |
|  | $\mathrm{H}(2.5)-\mathrm{H}(2.8)$ | Rejected |
|  | H (2.9) | Accepted |
|  | H (2.10) | Rejected |
|  | $\mathrm{H}(2.11)-\mathrm{H}(2.13)$ | Accepted |
|  | H (2.14) | Rejected |
|  | H (2.15) - H (2.16) | Accepted |
|  | H (2.17) - H (2.23) | Rejected |
|  | H (2.24) | Accepted |
|  | H (2.25) | Rejected |
|  | H (2.26) | Accepted |
|  | $\mathrm{H}(2.27)-\mathrm{H}(2.41)$ | Rejected |
|  | H (2.42) | Accepted |
| Hypothesis 3 | H (3.1) - H (3.10) | Rejected |
|  | H (3.11) - H (3.12) | Accepted |
|  | $\mathrm{H}(3.13)-\mathrm{H}(3.23)$ | Rejected |
|  | H (3.24) | Accepted |
|  | H (3.25) | Rejected |
|  | H (3.26) | Accepted |
|  | H (3.27) - H (3.42) | Rejected |


| Hypothesis 4 | $\mathrm{H}(4.1)-\mathrm{H}(4.42)$ | Analysis Not Possible |
| :---: | :---: | :---: |
| Hypothesis 5 | $\mathrm{H}(5.1)-\mathrm{H}(5.12)$ | Rejected |
|  | H (5.13) | Accepted |
|  | H (5.14) - H (5.19) | Rejected |
|  | H (5.20) | Accepted |
|  | H (5.21) - H (5.22) | Rejected |
|  | H (5.23) | Accepted |
|  | H (5.24) - H (5.30) | Rejected |
|  | H (5.31) | Accepted |
|  | H (5.32) - H (5.37) | Rejected |
|  | H (5.38) | Accepted |
|  | H (5.39) - H (5.42) | Rejected |
|  | H (5.43) | Accepted |
| Hypothesis 6 | H (6.a) | Accepted |
|  | H (6.b) - H (6.i) | Rejected |
| Hypothesis 7 | H (7.a) - H (7.i) | Rejected |
| Hypothesis 8 | H (8.a) - H (8.e) | Rejected |
|  | H (8.f) | Accepted |
|  | $\mathrm{H}(8 . \mathrm{g})-\mathrm{H}(8 . \mathrm{h})$ | Rejected |
|  | H (8.i) | Accepted |
| Hypothesis 9 | H (9.a)-H (9.h) | Rejected |
|  | H (9.i) | Accepted |
| Hypothesis 10 | H (10.a)-H (10.c) | Rejected |
|  | H (10.d) | Accepted |
|  | H (10.e)-H (10.f) | Rejected |
|  | H (10.g) | Accepted |
|  | H (10.h) - H (10.i) | Rejected |
| Hypothesis 11 | $\mathrm{H}(11 . \mathrm{a})-\mathrm{H}(11 . \mathrm{i})$ | Rejected |
| Hypothesis 12 | $\mathrm{H}(12 . \mathrm{a})-\mathrm{H}$ (12.f) | Rejected |
|  | H (12.g) | Accepted |
|  | H (12.h) - H (12.i) | Rejected |


| Hypothesis 13 | H (13.a) - H (13.i) | Rejected |
| :---: | :---: | :---: |
| Hypothesis 14 | H (14.a) | Rejected |
|  | H (14.b) - H (14.c) | Accepted |
|  | H (14.d) - H (14.f) | Rejected |
|  | H (14.g) | Accepted |
|  | H (14.h) | Rejected |
|  | H (14.i) | Accepted |
| Hypothesis 15 | H (15.a) | Rejected |
|  | H (15.b) | Accepted |
|  | H (15.c) - H (15.i) | Rejected |
| Hypothesis 16 | H (16.a) - H (16.i) | Rejected |
| Hypothesis 17 | H (17.a) - H (17.i) | Rejected |
| Hypothesis 18 | H (18.a) | Accepted |
|  | H (18.b) - H (18.i) | Rejected |
| Hypothesis 19 | H (19.a) | Accepted |
|  | H (19.b) - H (19.i) | Rejected |
| Hypothesis 20 | H (20.a) - H (20.i) | Rejected |
| Hypothesis 21 | H (21.a) - H (21.i) | Rejected |
| Hypothesis 22 | H (22.a) - H (22.i) | Rejected |
| Hypothesis 23 | H (23.a) - H (23.h) | Rejected |
|  | H (23.i) | Accepted |
| Hypothesis 24 | H (24.a) - H (24.b) | Accepted |
|  | H (24.c) - H (24.i) | Rejected |
| Hypothesis 25 | H (25.a) - H (25.i) | Rejected |
| Hypothesis 26 | H (26.a) | Rejected |
|  | H (26.b) - H (26.d) | Accepted |
|  | H (26.e) - H (26.f) | Rejected |
|  | H (26.g) | Accepted |
|  | H (26.h) | Rejected |
|  | H (26.i) | Accepted |
| Hypothesis 27 | H (27.a) | Rejected |
|  | H (27.b) | Accepted |


|  | H (27.c) - H (27.f) | Rejected |
| :---: | :---: | :---: |
|  | H (27.g) | Accepted |
|  | H (27.h) - H (27.i) | Rejected |
| Hypothesis 28 | H (28.a) - H (28.i) | Rejected |
| Hypothesis 29 | H (29.a) - H (29.i) | Rejected |
| Hypothesis 30 | H (30.a) - H (30.i) | Rejected |
| Hypothesis 31 | H (31.a) - H (31.i) | Rejected |
| Hypothesis 32 | H (32.a) - H (32.c) | Rejected |
|  | H (32.d) | Accepted |
|  | H (32.e) - H (32.f) | Rejected |
|  | H (32.g) | Accepted |
|  | $\mathrm{H}(32 . \mathrm{h})-\mathrm{H}(32 . \mathrm{i})$ | Rejected |
| Hypothesis 33 | H (33.a) - H (33.i) | Rejected |
| Hypothesis 34 | H (34.a) - H (34.h) | Rejected |
|  | H (34.i) | Accepted |
| Hypothesis 35 | H (35.a) - H (35.i) | Rejected |
| Hypothesis 36 | H (36.a) | Rejected |
|  | H (36.b) - H (36.d) | Accepted |
|  | H (36.e) - H (35.i) | Rejected |
| Hypothesis 37 | H (37.a) | Accepted |
|  | H (37.b) - H (37.i) | Rejected |
| Hypothesis 38 | $\mathrm{H}(38 . \mathrm{a})-\mathrm{H}(38.1)$ | Rejected |
| Hypothesis 39 | H (39.a) - H (39.i) | Rejected |
| Hypothesis 40 | H (40.a) - H (40.i) | Rejected |
| Hypothesis 41 | H (41.a) | Accepted |
|  | H (41.b) - H (41.i) | Rejected |
| Hypothesis 42 | H (42.a) - H (42.i) | Rejected |
| Hypothesis 43 | H (43.a) - H (43.b) | Rejected |
|  | H (43.c) - H (43.d) | Accepted |
|  | H (43.e) - H (43.i) | Rejected |


| Hypothesis 44 | H (44.a) - H (44.b) | Rejected |
| :---: | :---: | :---: |
|  | H (44.c) - H (44.d) | Accepted |
|  | H (44.e) - H (44.f) | Rejected |
|  | H (44.g) | Accepted |
|  | H (44.h) | Rejected |
|  | H (44.i) | Accepted |
| Hypothesis 45 | H (45.a) - H (45.i) | Rejected |
| Hypothesis 46 | H (46.a) | Rejected |
|  | H (46.b) - H (46.d) | Accepted |
|  | H (46.e) - H (46.f) | Rejected |
|  | H (46.g) | Accepted |
|  | H (46.h) - H (46.i) | Rejected |
| Hypothesis 47 | H (47.a) | Rejected |
|  | H (47.b) - H (47.c) | Accepted |
|  | H (47.d) - H (46.f) | Rejected |
|  | H (47.g) | Accepted |
|  | H (47.h) - H (47.i) | Rejected |
| Hypothesis 48 | H (48.a) - H (48.b) | Rejected |
|  | H (48.c) - H (48.d) | Accepted |
|  | H (48.e) - H (48.i) | Rejected |
| Hypothesis 49 | H (49.a) - H (49.b) | Rejected |
|  | H (49.c) - H (49.d) | Accepted |
|  | H (49.e) - H (49.i) | Rejected |
| Hypothesis 50 | H (50.1) | Accepted |
|  | $\mathrm{H}(50.2)-\mathrm{H}(50.22)$ | Rejected |
|  | H (50.23) | Accepted |
|  | H (50.24) | Rejected |
|  | H (50.25) | Accepted |
|  | H (50.26) - H (50.28) | Rejected |
|  | H (50.29) | Accepted |
|  | H (50.30) - H (50.34) | Rejected |
|  | H (50.35) | Accepted |


|  | H (50.36) - H (50.38) | Rejected |
| :---: | :---: | :---: |
|  | H (50.39) - H (50.41) | Accepted |
|  | H (50.42) | Rejected |
| Hypothesis 51 | H (51.1) - H (51.2) | Rejected |
|  | H (51.3) | Accepted |
|  | $\mathrm{H}(51.4)-\mathrm{H}(51.21)$ | Rejected |
|  | H (51.22) - H (51.23) | Accepted |
|  | H (51.24) | Rejected |
|  | H (51.25) | Accepted |
|  | H (51.26) - H (51.32) | Rejected |
|  | H (51.33) | Accepted |
|  | H (51.34) - H (51.38) | Rejected |
|  | H (51.39) | Accepted |
|  | H (51.40) - H (51.42) | Rejected |
| Hypothesis 52 | H (52.1) | Accepted |
|  | H (52.2) - H (52.4) | Rejected |
|  | H (52.5) | Accepted |
|  | H (52.6) - H (52.7) | Rejected |
|  | H (52.8) | Accepted |
|  | H (52.9) - H (52.10) | Rejected |
|  | H (52.11) - H (52.12) | Accepted |
|  | H (52.13) - H (52.19) | Rejected |
|  | $\mathrm{H}(52.20)-\mathrm{H}(52.21)$ | Accepted |
|  | H (52.22) | Rejected |
|  | H (52.23) | Accepted |
|  | H (52.24) - H (52.26) | Rejected |
|  | H (52.27) | Accepted |
|  | $\mathrm{H}(52.28)-\mathrm{H}(52.30)$ | Rejected |
|  | $\mathrm{H}(52.31)-\mathrm{H}(52.32)$ | Accepted |
|  | H (52.33) - H (52.34) | Rejected |
|  | H (52.35) - H (52.36) | Accepted |


|  | H (52.37) | Rejected |
| :---: | :---: | :---: |
| Hypothesis 53 | H (53.a)-H (53.c) | Accepted |
|  | H (53.d) - H (53.f) | Rejected |
|  | H (53.g) - H (53.i) | Accepted |
|  | H (53.j) - H (53.1) | Rejected |
| Hypothesis 54 | H (54.a)-H (54.b) | Rejected |
|  | H (54.c) | Accepted |
|  | H (54.d) | Rejected |
|  | H (54.e)- H (54.f) | Accepted |
|  | H (54.g) - H (54.j) | Rejected |
|  | H (54.k) - H (54.1) | Accepted |
| Hypothesis 55 | H (55.a)-H (55.k) | Rejected |
|  | H (55.1) | Accepted |
| Hypothesis 56 | H (56.a) - H (56.b) | Rejected |
|  | H (56.c) | Accepted |
|  | H (56.d) | Rejected |
|  | H (56.e) | Accepted |
|  | H (56.f) - H (56.k) | Rejected |
|  | H (56.1) | Accepted |
| Hypothesis 57 | H (57.a) - H (57.1) | Rejected |
| Hypothesis 58 | $\mathrm{H}(58 . \mathrm{a})-\mathrm{H}(58.1)$ | Rejected |
| Hypothesis 59 | H (59.a)-H (59.1) | Rejected |
| Hypothesis 60 | H (60.a)- H (60.k) | Rejected |
|  | H (60.1) | Accepted |
| Hypothesis 61 | H (61.a) - H (61.1) | Rejected |
| Hypothesis 62 | $\mathrm{H}(62 . \mathrm{a})-\mathrm{H}(62.1)$ | Rejected |
| Hypothesis 63 | H (63.a) - H (63.h) | Rejected |
|  | H (63.i) | Accepted |

### 7.5. APPENDIX V: FACTOR ANALYSIS OUTPUTS

Analysis number 1 Pairwise deletion of cases with missing values

|  | Mean | Std Dev | Cases | Label |
| :---: | :---: | :---: | :---: | :---: |
| VAR00035 | 2,78462 | , 77644 | 195 |  |
| VAR00036 | 3,59794 | , 56053 | 194 |  |
| VAR00037 | 3,58763 | , 54350 | 194 |  |
| VARC.038 | 3,02538 | . 81087 | 197 |  |
| VARC0039 | 3,27919 | , 66871 | 197 |  |
| VAR00040 | 2,76020 | , 86448 | 196 |  |
| VAR00041 | 2,45078 | , 88912 | 193 |  |
| VAR00042 | 1,87958 | , 82790 | 191 |  |
| VAR00043 | 3,18367 | , 62177 | 196 |  |
| VAR00044 | 1,95385 | , 82670 | 195 |  |
| VAR00045 | 2,51546 | , 73567 | 194 |  |
| VAR00046 | 2,30412 | . 73779 | 194 |  |
| VAR00047 | 2,92147 | , 64816 | 191 |  |
| VAR00048 | 2,80108 | . 72649 | 186 |  |
| VAR00049 | 2,96410 | , 66870 | 195 |  |
| VAR00050 | 2,50521 | . 73789 | 192 |  |
| VAR00051 | 2,06701 | . 68337 | 194 |  |
| VAR00052 | 2,94330 | , 68430 | 194 |  |
| VAR00053 | 2,20513 | ,75230 | 195 |  |
| VAR00054 | 2,17010 | , 70302 | 194 |  |
| VAR00055 | 2,29016 | . 74914 | 193 |  |
| VAR00056 | 2,72775 | , 85176 | 191 |  |
| VAR00057 | 2,70313 | . 77283 | 192 |  |
| VAR00058 | 2,53886 | , 68450 | 193 |  |
| VAR00059 | 2,71875 | ,68953 | 192 |  |
| VAR00060 | 2,17436 | . 73243 | 195 |  |
| VAR00061 | 2,84694 | . 74904 | 196 |  |
| VAR00062 | 2,61735 | . 76561 | 196 |  |
| VAR00063 | 2,89691 | , 65157 | 194 |  |
| VAR00064 | 2,77041 | . 79314 | 196 |  |
| VAR00065 | 3,07692 | , 64154 | 195 |  |
| VAR00066 | 2,69792 | , 71072 | 192 |  |
| VAR00067 | 2,72308 | , 87652 | 195 |  |
| VAR00068 | 2,02062 | , 58442 | 194 |  |
| VAR00069 | 3,04124 | , 75382 | 194 |  |
| VAR00070 | 2,50769 | . 76232 | 195 |  |

[^2]Correlation Matrix:

VAR00035 VAR00036 VAR00037 VAR00038 VAR00039 VAR00040 VAR0004 1

| VAR00035 | 1,00000 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00036 | , 03156 | 1,00000 |  |  |  |  |  |
| VAR00037 | . 00412 | . 37150 | 1,00000 |  |  |  |  |
| VAR00038 | , 02736 | . 22254 | , 10086 | 1,00000 |  |  |  |
| VAR00039 | -,01357 | . 20258 | , 16240 | , 48556 | 1,00000 |  |  |
| VAR00040 | , 19761 | -,03083 | . 09430 | . 11689 | , 13267 | 1,00000 |  |
| VAR00041 | . 20605 | -,09234 | . 03515 | -, 25175 | -,25180 | -,03519 | 1,00000 |
| VAR00042 | , 05567 | -. 07991 | -. 11913 | -, 20863 | -, 18506 | -,10588 | . 27875 |
| VAR00043 | , 07039 | , 12122 | , 09053 | -,06216 | . 04479 | . 16570 | , 07561 |
| VAR00044 | . 26548 | -, 12996 | -. 03669 | -.,04448 | -. 01358 | . 13607 | . 23618 |
| VAR00045 | . 29950 | . 08253 | . 01782 | -. 03108 | . 03390 | , 14344 | , 28758 |
| VAR00046 | . 17657 | -. 03309 | -. 08265 | . 04884 | -. 01048 | . 12628 | , 12858 |
| VAR00047 | , 24299 | , 04269 | -, 04184 | . 03876 | , 06609 | , 18397 | , 08323 |
| VAR00048 | -,10024 | . 07254 | , 09973 | , 53361 | , 36565 | . 06910 | -. 25757 |
| VAR00049 | , 19428 | . 14114 | . 18626 | , 06852 | -,03495 | . 11891 | , 09308 |
| VAR00050 | , 49190 | -. 09336 | -, 02492 | , 06087 | , 03467 | . 08469 | , 20817 |
| VAR00051 | , 23133 | -,05595 | -,18387 | -,03195 | -,16013 | . 05186 | , 20115 |


| VAR00052 | . 15389 | . 04323 | . 04836 | . 14386 | . 06018 | , 20523 | .06122 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00053 | . 17896 | . 09671 | -, 02044 | , 05062 | -,01198 | . 02285 | . 18367 |
| VAR00054 | , 29392 | -,10752 | -,08162 | , 00136 | -, 05122 | . 08578 | . 29938 |
| VAR00055 | . 11552 | . 05152 | -.,06094 | -. 03213 | -,11553 | . 04330 | , 10678 |
| VAR00056 | , 31688 | -,04452 | -,05708 | -. 05822 | -, 07026 | , 09916 | , 20218 |
| VAR00057 | , 12407 | . 09620 | , 16750 | , 12338 | , 25112 | . 28725 | -,16759 |
| VAR00058 | , 40520 | -,07201 | -,06883 | , 03023 | -.03158 | . 13730 | . 25700 |
| VAR00059 | , 20666 | , 03688 | , 00602 | -,07777 | -. 15753 | -.,00005 | , 18595 |
| VAR00060 | , 23013 | , 01847 | . 02066 | , 04295 | -,06415 | . 13721 | . 05519 |
| VAR00061 | , 14493 | . 06052 | , 20334 | -,14445 | -,10821 | . 10130 | -,03066 |
| VAR00062 | , 18851 | , 08557 | , 01441 | , 09346 | -,09467 | , 21215 | , 15946 |
| VAR00063 | -, 01188 | -,02380 | -,02149 | , 21292 | . 08271 | . 07915 | . 01568 |
| VAR00064 | . 27784 | . 04430 | . 04518 | , 05093 | . 04064 | -, 02710 | . 00682 |
| VAR00065 | , 21105 | , 14457 | , 20375 | -.06551 | . 04613 | , 14509 | , 07958 |
| VAR00066 | , 33716 | , 04914 | , 12528 | , 18276 | , 19139 | , 31749 | , 00923 |
| VAR00067 | -, 05376 | , 00789 | . 03487 | -,01314 | -. 00918 | , 16511 | -,05808 |
| VAR00068 | , 18340 | -,14086 | -,14434 | -,12337 | -. 23390 | . 10394 | ,04704 |
| VAR00069 | -,08617 | . 13873 | . 18233 | , 18774 | . 09115 | -,04899 | -. 14634 |
| VAR00070 | -, 10347 | , 00000 | -,00111 | , 15192 | -.01429 | , 16794 | -,05585 |

VAR00042 VAR00043 VAR00044 VAR00045 VAR00046 VAR00047 VAR00048
VAR00042 1,00000

## VAR00043 VAR00045

 VAR00046 VAR00047VAR00048 VAR00049
VAR00050 VAR00051

$$
\begin{array}{r}
, 12753 \\
, 17117 \\
-13127
\end{array}
$$

\[
$$
\begin{aligned}
& , 25098 \\
& , 03773
\end{aligned}
$$

\] VAR00053 | VAROOO |
| :--- |
| VAR0005 |

$$
\begin{array}{r}
-, 13427 \\
, 16772 \\
, 14611
\end{array}
$$

,00638

$$
\begin{array}{r}
-, 19113 \\
-, 09423
\end{array}
$$ VAR00056

$$
\begin{array}{r}
14611 \\
, 14904 \\
, 25593 \\
17025
\end{array}
$$

$$
\begin{aligned}
& -, 09504 \\
& -, 03184
\end{aligned}
$$ VAR00057

VAR00058

$$
\begin{array}{r}
-, 17835 \\
.04452
\end{array}
$$

$$
\begin{aligned}
& , 06927 \\
& , 05667
\end{aligned}
$$ VAR00059 VAR00060

VAR00061

$$
\begin{aligned}
& , 05566 \\
& , 00817
\end{aligned}
$$ VAR00062 -, 16774

$$
\text { , } 08376
$$ VAR00063 -. 11425 VAR00064

$$
\begin{array}{r}
-.11425 \\
.11731
\end{array}
$$

$$
\begin{array}{r}
.14839 \\
-.08043
\end{array}
$$ VAR00065 VAR00066

$$
\begin{array}{r}
.26281 \\
.08919
\end{array}
$$ VAR00067 VAR00068 , 18581 $\begin{array}{rr}\text { VARO0069 } & -, 16474 \\ \text { VAR00070 } & , 12773\end{array}$

1,00000
,- 15612
, 22452
, 12655
1,00000
,- 08424

$$
\begin{array}{r}
.08919 \\
, .23457 \\
-, 14260
\end{array}
$$

VAR00070

| 1,00000 |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| , 13747 | 1,00000 |  |  |  |
| , 06827 | , 34745 | 1,00000 |  |  |
| , 22130 | , 32631 | , 22053 | 1,00000 |  |
| ,- 05836 | ,- 29862 | ,- 04663 | ,- 11050 | 1,00000 |
| , 01562 | , 23440 | , 25113 | , 06832 | ,- 04957 |
| , 10801 | , 22690 | , 18664 | , 11575 | , 02873 |
| , 05071 | , 24137 | , 40635 | , 16520 | ,- 07902 |
| , 11533 | , 03360 | , 11653 | , 17201 | , 16131 |
| , 13973 | , 13870 | , 13716 | , 07604 | ,- 08589 |
| , 15500 | , 32130 | , 24080 | , 11857 | , 05350 |
| , 07141 | , 15646 | , 12563 | ,- 04290 | ,- 03400 |
| , 14423 | , 29287 | , 02637 | , 21027 | ,- 14929 |
| , 07895 | , 13595 | , 20969 | , 17935 | , 00275 |
| , 26546 | , 33379 | , 29302 | , 17896 | ,- 11850 |
| , 01628 | , 13189 | ,- 10605 | ,- 00987 | ,- 23338 |
| , 12534 | , 20142 | , 21075 | , 00844 | , 07626 |
| ,- 07043 | , 15908 | , 10378 | ,- 00556 | ,- 26394 |
| , 00438 | , 20039 | , 19413 | , 08779 | ,- 06340 |
| , 01173 | ,- 13183 | ,- 11384 | , 06960 | , 20753 |
| , 14841 | , 23152 | , 17348 | , 13847 | , 00605 |
| ,- 04270 | , 06878 | , 11704 | , 15460 | ,- 12888 |
| , 19302 | , 32594 | , 31767 | , 19020 | ,- 01434 |
| ,- 10870 | ,- 00747 | ,- 01841 | , 14457 | ,- 03715 |
| , 13210 | , 17832 | , 30047 | , 11854 | ,- 14349 |
| ,- 14038 | ,- 07715 | ,- 07931 | ,- 07876 | , 14814 |
| , 16142 | , 18208 | , 13942 | , 19780 | , 02152 |

VAR00049
.03935
, 12424
, 17746
, 00435

$$
\begin{array}{r}
.07342 \\
, 14502 \\
-15536 \\
, 01119 \\
, 12753
\end{array}
$$

$$
\begin{array}{r}
.09625 \\
.02294
\end{array}
$$

$$
\begin{aligned}
& , 00817 \\
& , 18179
\end{aligned}
$$

$$
\begin{array}{r}
.14201 \\
.05958
\end{array}
$$

1,00000
VARO0049

| VAR00050 | , 15948 |
| :--- | ---: |
| VAR00051 | , 05057 |
| VAR00052 | , 01883 |
| VAR00053 | ,- 09794 |
| VAR00054 | , 13568 |
| VAR00055 | , 14278 |
| VAR00056 | , 05674 |
| VAR00057 | , 17011 |
| VAR00058 | , 21945 |
| VAR00059 | , 06061 |
| VAR00060 | , 20163 |
| VAR00061 | , 27639 |
| VAR00062 | , 20464 |
| VAR00063 | , 07607 |
| VAR00064 | , 07211 |
| VAR00065 | , 14035 |
| VAR00066 | , 19856 |
| VAR00067 | ,- 03524 |
| VAR00068 | , 05645 |
| VAR00069 | , 11877 |
| VAR00070 | , 02145 |

1,00000
, 20688
, 11541
, 02102
, 31033
, 17574
, 22386
, 09003
, 38088
, 09272
, 36085
,- 03150
, 25038
,- 06236
, 26457
,- 04162
, 18660
-13750
, 14830
,- 08765
,- 10584

| 1,00000 |  |
| ---: | ---: |
| , 08549 | 1,00000 |
| , 16795 | , 01285 |
| , 20252 | , 04404 |
| , 08333 | ,- 00906 |
| , 11946 | ,- 02322 |
| , 06280 | , 24563 |
| , 20268 | , 12159 |
| , 03773 | , 05185 |
| , 18292 | , 21596 |
| ,- 05026 | , 02312 |
| , 06813 | , 18634 |
| -13519 | , 11478 |
| , 26656 | , 08027 |
| , 04803 | , 20092 |
| , 09223 | , 12627 |
| ,- 07205 | , 07469 |
| , 33758 | ,- 13190 |
| ,- 21853 | , 10921 |
| , 15311 | , 09695 |


| 1,00000 |  |  |
| ---: | ---: | ---: |
| , 19579 | 1,00000 |  |
| , 08798 | , 35091 | 1,00000 |
| , 17808 | , 23341 | , 11920 |
| ,- 01275 | , 13947 | , 11617 |
| , 06310 | , 01674 | , 22433 |
| , 12967 | ,- 03532 | ,- 03677 |
| ,- 00945 | , 18261 | , 16344 |
| ,- 06097 | ,- 06941 | ,- 01204 |
| , 04810 | , 00227 | , 19822 |
| ,- 08417 | , 03122 | , 05295 |
| , 12265 | , 10868 | , 05558 |
| ,- 07729 | ,- 01717 | ,- 04929 |
| , 09658 | , 18849 | , 10660 |
| ,- 07121 | ,- 15697 | ,- 02766 |
| ,- 00074 | , 14645 | , 08344 |
| ,- 22032 | ,- 28187 | ,- 09630 |
| ,- 07999 | , 04744 | , 14594 |


|  | VAR00056 | VAR00057 | VAR00058 | VAR00059 | VAR00060 | VAR00061 | VAR00062 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00056 | 1,00000 |  |  |  |  |  |  |
| VAR00057 | -. 10258 | 1,00000 |  |  |  |  |  |
| VAR00058 | . 21063 | , 20929 | 1,00000 |  | - |  |  |
| VAR00059 | , 22430 | -,15179 | , 21682 | 1,00000 |  |  |  |
| VAR00060 | , 01560 | , 19427 | , 35984 | . 00186 | 1,00000 |  |  |
| VAR00061 | -. 08163 | . 20539 | . 18317 | , 07352 | . 13338 | 1,00000 |  |
| VAR00062 | -,03318 | , 06716 | ,29047 | . 14989 | . 18279 | , 23715 | 1,00000 |
| VAR00063 | -.07863 | , 06333 | -,02587 | -. 10792 | -,02683 | -,00208 | . 04639 |
| VAR00064 | , 19733 | . 19450 | ,16907 | -. 01329 | . 13142 | . 05276 | , 02348 |
| VAR00065 | -. 11347 | . 30187 | , 23327 | . 19998 | . 17995 | , 28421 | , 03828 |
| VAR00066 | , 16091 | , 32203 | , 16926 | . 01155 | . 25642 | . 15271 | . 14561 |
| VAR00067 | -. 06420 | . 02662 | , 01633 | -. 00933 | -, 05985 | . 08175 | . 08213 |
| VAR00068 | . 05764 | . 06149 | , 18054 | -,05582 | . 22170 | . 07006 | , 15045 |
| VAR00069 | -, 19277 | , 10828 | -,14992 | -. 12815 | , 02349 | ,10466 | -, 04414 |
| VAR00070 | -. 00709 | . 13058 | , 15007 | -,01311 | , 07497 | -,05606 | . 04648 |
|  | VAR00063 | VAR00064 | VAR00065 | VAR00066 | VAR00067 | VAR00068 | VAR00069 |
| VAR00063 | 1,00000 |  |  |  |  |  |  |
| VAR00064 | -r,06502 | 1,00000 |  |  |  |  |  |
| VAR00065 | , 12975 | -,01468 | 1,00000 |  |  |  |  |
| VAR00066 | , 04298 | , 16787 | . 17194 | 1,00000 |  |  |  |
| VAR00067 | , 15180 | -.,08044 | , 11110 | . 00155 | 1,00000 |  |  |
| VAR00068 | -,15850 | , 03581 | -,04564 | . 22258 | , 00079 | 1,00000 |  |
| VAR00069 | ,18919 | . 07795 | , 11233 | . 09980 | , 04915 | -,10917 | 1,00000 |
| VAR00070 | , 05978 | . 06404 | -,00153 | . 19261 | . 13347 | , 16264 | , 02597 |
|  | VAR00070 |  |  |  |  |  |  |
| VAR00070 | 1,00000 |  |  |  |  |  |  |

Kaiser-Meyer-Olkin Measure of Sampling Adequacy $=$, 70679
Bartlett Test of Sphericity $=1595,8542$, Significance $=$,00000

1-tailed Significance of Correlation Matrix:
'. ' is printed for diagonal elements.

VAR00035 VAR00036 VAR00037 VAR00038 VAR00039

| VAR00035 | , |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00036 | , 33152 | , |  |  |  |
| VAR00037 | . 47740 | . 00000 | , |  |  |
| VAR00038 | . 35210 | , 00090 | . 08085 | , |  |
| VAR00039 | , 42532 | . 00231 | , 01184 | . 00000 | , |
| VAR00040 | . 00281 | . 33479 | , 09604 | , 05139 | . 03189 |
| VAR00041 | , 00207 | . 10194 | , 31508 | . 00021 | , 00021 |
| VAR00042 | , 22217 | , 13719 | . 05173 | , 00189 | , 00519 |
| VAR00043 | , 16471 | ,04655 | , 10526 | , 19337 | , 26653 |
| VAR00044 | , 00009 | . 03582 | , 30671 | , 26846 | , 42527 |
| VAR00045 | . 00001 | . 12819 | , 40337 | , 33355 | . 31945 |
| VAR00046 | , 00714 | , 32476 | , 12720 | , 24943 | . 44232 |
| VAR00047 | . 00038 | . 28038 | , 28377 | . 29723 | , 18185 |
| VAR00048 | . 08790 | . 16455 | . 08900 | . 00000 | . 00000 |
| VAR00049 | , 00339 | . 02542 | . 00485 | ,17059 | , 31381 |
| VAR00050 | , 00000 | , 10066 | , 36676 | , 20082 | , 31654 |
| VAR00051 | . 00062 | . 22100 | , 00544 | , 32916 | . 01286 |
| VAR00052 | . 01654 | , 27632 | , 25323 | . 02269 | ,20228 |
| VAR00053 | , 00638 | , 09104 | , 38919 | , 24110 | . 43399 |
| VAR00054 | , 00002 | , 06937 | , 13083 | , 49250 | , 23906 |
| VAR00055 | . 05576 | , 24010 | . 20178 | , 32868 | , 05481 |
| VAR00056 | . 00000 | , 27202 | , 21825 | , 21184 | . 16707 |
| VAR00057 | , 04404 | , 09396 | , 01062 | , 04410 | , 00022 |
| VAR00058 | , 00000 | , 16175 | , 17267 | , 33821 | , 33143 |



| VAR00045 | , |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00046 | , 00000 | , |  |  |  |
| VAR00047 | , 00000 | . 00115 | , |  |  |
| VAR00048 | . 00002 | , 26481 | ,06877 | , |  |
| VAR00049 | . 00052 | , 00021 | , 17449 | , 25142 | , |
| VAR00050 | , 00082 | , 00496 | . 05733 | . 35011 | . 01377 |
| VAR00051 | , 00037 | , 00000 | , 01155 | , 14316 | , 24245 |
| VAR00052 | , 32182 | , 05374 | , 00897 | . 01392 | , 39748 |
| VAR00053 | , 02720 | . 02858 | , 14854 | , 12189 | , 08713 |
| VAR00054 | , 00000 | . 00038 | , 05209 | . 23535 | . 02996 |
| VAR00055 | . 01533 | , 04166 | , 27943 | , 32342 | . 02410 |
| VAR00056 | , 00002 | , 35934 | , 00198 | , 02155 | , 21839 |
| VAR00057 | . 03073 | , 00184 | , 00702 | , 48528 | ,00916 |
| VAR00058 | , 00000 | , 00002 | , 00700 | . 05505 | . 00111 |
| VAR00059 | . 03484 | . 07266 | , 44653 | ,00076 | , 20245 |
| VAR00060 | , 00249 | , 00159 | , 45402 | , 15109 | , 00241 |
| VAR00061 | . 01336 | . 07493 | , 46957 | , 00014 | , 00005 |
| VAR00062 | , 00254 | . 00334 | , 11360 | , 19496 | . 00205 |
| VAR00063 | . 03417 | . 05794 | . 17063 | , 00229 | , 14653 |
| VAR00064 | , 00058 | , 00778 | . 02804 | , 46735 | , 15822 |
| VAR00065 | . 17158 | . 05251 | , 01659 | , 04062 | , 02578 |
| VAR00066 | , 00000 | , 00000 | . 00456 | , 42382 | , 00301 |
| VAR00067 | , 45907 | . 39996 | . 02329 | , 30783 | , 31329 |
| VAR00068 | . 00679 | . 00001 | , 05212 | , 02600 | , 21836 |
| VAR00069 | . 14440 | . 13773 | . 14068 | , 02268 | , 05042 |
| VAR00070 | , 00574 | , 02688 | , 00311 | , 38593 | . 38355 |

VAR00050 VAR00051 VAR00052 VAR00053 VAR00054 VAR00055 VAR00056 VAR00057 VARO0058 VAR00059 VAR00060 VAR00061 VAR00062 VAR00063 VAR00064 VAR00065 VAR000. 6 VAROOC: 7 VAR00068 VAR00069 VAR00070

| $, 00204$ |  |
| :---: | :---: |
|  | . 05641 |
|  | . 38646 |
|  | , 00001 |
|  | , 000765 |
|  | . 00104 |
|  | , 10897 |
|  | , 00000 |
|  | , 10284 |
|  | . 00000 |
|  | , 33223 |
|  | . 00023 |
|  | , 19635 |
|  | , 00010 |
|  | , 28427 |
|  | . 00528 |
|  | , 02926 |
|  | , 02085 |
|  | . 11521 |
|  | . 07252 |

VAROOO55
VAR00055 VAR00056 VAR00057 VAR00058 VARO0059 VAR00060 VAR00061 VAR00062 VAR00063 VARO0064 VAR00065 VAR00066 VAR00067 VAR00068 VAR00069 VAR00070

| , 05162 |
| :---: |
| , 05570 |
| . 00090 |
| . 30774 |
| . 01175 |
| , 43398 |
| , 00286 |
| , 23345 |
| . 22133 |
| , 24916 |
| . 07269 |
| , 35205 |
| , 12619 |
| . 09313 |
| . 02170 |

VAR00060
VAR00061
VAR00062
VAR00063
VAR00064

| VAR00060 | , |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00061 | . 03152 | , |  |  |  |
| VAR00062 | , 00527 | , 00041 | , |  |  |
| VAR00063 | , 35555 | . 48851 | . 26034 | , |  |
| VAR00064 | , 03352 | , 23134 | . 37195 | , 18387 | ' |
| VAR00065 | , 00602 | , 00003 | , 29809 | , 03643 | , 41951 |
| VAR00066 | , 00017 | , 01747 | . 02223 | . 27853 | . 01014 |
| VAR00067 | . 20416 | . 12858 | . 12747 | . 01754 | , 13243 |
| VAR00068 | . 00100 | . 16646 | . 01838 | . 01426 | , 31053 |
| VAR00069 | , 37319 | . 07374 | , 27109 | , 00438 | , 14061 |
| VAR00070 | , 15005 | . 21875 | , 25993 | ,20505 | , 18750 |
|  | VAR00065 | VAR00066 | VAR00067 | VAR00068 | VAR00069 |
| VAR00065 | r |  |  |  |  |
| VAR00066 | , 00855 | , |  |  |  |
| VAR00067 | , 06151 | , 49153 | , |  |  |
| VAR00068 | , 26426 | , 00101 | . 49564 | , |  |
| VAR00069 | , 05993 | , 08534 | , 24863 | , 06585 | , |
| VAR00070 | , 49155 | . 00380 | , 03177 | , 01192 | , 35998 |

VAR00070
VAR00070

Initial Statistics:

| Variable | Communality | * | Eactor | Eigenvalue | Pct of Var | Cum Pet |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00035 | 1,00000 | * | 1 | 4,82079 | 13,4 | 13,4 |
| VAR00036 | 1,00000 | * | 2 | 3,28821 | 9,1 | 22,5 |
| VAR00037 | 1,00000 | * | 3 | 2,30918 | 6,4 | 28,9 |
| VAR00038 | 1,00000 | * | 4 | 1,77806 | 4,9 | 33,9 |
| VAR00039 | 1,00000 | * | 5 | 1,62744 | 4,5 | 38,4 |
| VAR00040 | 1,00000 | * | 6 | 1,56417 | 4,3 | 42,7 |
| VAR00041 | 1,00000 | * | 7 | 1,34951 | 3,7 | 46,5 |
| VAR00042 | 1,00000 | * | 8 | 1,25999 | 3,5 | 50,0 |
| VAR00043 | 1,00000 | * | 9 | 1,23381 | 3,4 | 53,4 |
| VAR00044 | 1,00000 | * | 10 | 1,16276 | 3,2 | 56,6 |
| VAR00045 | 1,00000 | * | 11 | 1,13440 | 3,2 | 59,8 |
| VAR00046 | 1,00000 | * | 12 | 1,01080 | 2,8 | 62,6 |
| VAR00047 | 1,00000 | * | 13 | , 96139 | 2,7 | 65,3 |
| VAR00048 | 1,00000 | * | 14 | , 91237 | 2,5 | 67,8 |
| VAR0004 9 | 1,00000 | * | 15 | ,89098 | 2,5 | 70,3 |
| VAR00050 | 1,00000 | * | 16 | , 83235 | 2,3 | 72,6 |
| VAR00051 | 1,00000 | * | 17 | . 78063 | 2,2 | 74,8 |
| VAR00052 | 1,00000 | * | 18 | , 76686 | 2,1 | 76,9 |
| VAR00053 | 1,00000 | * | 19 | , 72670 | 2,0 | 78,9 |
| VAR00054 | 1,00000 | * | 20 | , 67957 | 1,9 | 80,8 |
| VAR00055 | 1,00000 | * | 21 | , 64503 | 1,8 | 82,6 |
| VAR00056 | 1,00000 | * | 22 | . 59635 | 1,7 | 84,3 |
| VAR00057 | 1,00000 | * | 23 | , 57590 | 1,6 | 85,9 |
| VAR00058 | 1,00000 | * | 24 | . 53465 | 1,5 | 87,3 |
| VAR00059 | 1,00000 | * | 25 | , 51083 | 1,4 | 88,8 |
| VAR00060 | 1,00000 | * | 26 | , 49252 | 1,4 | 90,1 |
| VAR00061 | 1,00000 | * | 27 | , 48960 | 1,4 | 91,5 |
| VAR00062 | 1,00000 | * | 28 | . 46781 | 1,3 | 92,8 |
| VAR00063 | 1,00000 | * | 29 | . 42329 | 1,2 | 94,0 |
| VAR00064 | 1,00000 | * | 30 | , 38832 | 1,1 | 95,0 |
| VAR00065 | 1,00000 | * | 31 | , 34411 | 1,0 | 96,0 |
| VAR00066 | 1,00000 | * | 32 | , 32391 | , 9 | 96,9 |
| VAR00067 | 1,00000 | * | 33 | , 30129 | , 8 | 97,7 |
| VAR00068 | 1,00000 | * | 34 | , 28513 | , 8 | 98,5 |
| VAR00069 | 1,00000 | * | 35 | . 27560 | , 8 | 99,3 |
| VAR00070 | 1,00000 | * | 36 | , 25570 | , 7 | 100,0 |

PC extracted 6 factors.

Eactor Matrix:

|  | Factor 1 | Factor 2 | Factor 3 | Eactor 4 | Eactor 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00035 | , 64716 | . 05217 | -,00769 | , 31618 | . 00073 |
| VAR00036 | -,02875 | , 36917 | -, 05270 | , 36607 | . 01825 |
| VAR00037 | -,03085 | . 41844 | -,17242 | , 34831 | -,01950 |
| VAR00038 | -,03650 | , 52666 | , 56177 | ,14392 | , 00111 |
| VAR00039 | -, 10586 | , 51765 | , 43132 | . 21643 | . 16282 |
| VAR00040 | , 31761 | , 36471 | , 01965 | -, 16846 | , 25044 |
| VAR00041 | . 40630 | -,34906 | -,21136 | . 24635 | , 08585 |
| VAR00042 | . 25360 | -. 49748 | , 13050 | , 01718 | , 17426 |
| VAR00043 | . 08159 | , 37411 | -,41997 | , 01679 | , 17072 |
| VAR00044 | , 37173 | -. 13123 | . 19670 | . 00448 | , 28989 |
| VAR00045 | , 63503 | -,01414 | -. 07214 | , 03843 | , 14423 |
| VAR00046 | . 54140 | , 09069 | , 06039 | -, 33704 | -,08916 |
| VAR00047 | . 40875 | , 11644 | , 01992 | -,11329 | , 57373 |
| VAR00048 | -,23473 | , 39997 | , 60279 | , 06330 | -,14807 |


| VAR00049 | . 35991 | . 28557 | -, 24088 | . 07233 | -,26446 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00050 | , 54916 | -, 02263 | , 18559 | . 24686 | -, 31430 |
| VAR00051 | , 47465 | -,20116 | ,11838 | -,25131 | -, 01563 |
| VAR00052 | . 22290 | , 37750 | . 04194 | . 02805 | , 13511 |
| VAR00053 | . 24493 | -,22622 | . 20225 | , 29450 | . 19040 |
| VAR00054 | , 53688 | -,15124 | , 27631 | ,06782 | -, 16854 |
| VAR00055 | , 33359 | -,08579 | , 13764 | -,04933 | -. 27963 |
| VAR00056 | . 39334 | -, 28814 | . 10324 | , 33941 | , 28645 |
| VAR00057 | , 30848 | ,52409 | . 04462 | -,19469 | -, 01720 |
| VAR00058 | ,65914 | , 04477 | -,06810 | . 03587 | -, 10751 |
| VAR00059 | , 19889 | -. 16731 | -, 34494 | , 41639 | . 15299 |
| VAR00060 | . 46556 | , 18359 | , 04259 | -. 09609 | -, 39839 |
| VAR00061 | , 20013 | , 27063 | -,57637 | -, 05025 | -, 21575 |
| VAR00062 | , 39958 | , 16004 | -,15434 | -,00462 | -, 24319 |
| VAR00063 | -, 08335 | , 33190 | . 05838 | -,02075 | . 12949 |
| VAR00064 | , 36416 | . 04204 | . 21526 | . 12926 | -,01745 |
| VAR00065 | . 22062 | , 40170 | -. 45988 | . 04716 | . 10103 |
| VAR00066 | , 50647 | , 34521 | . 11807 | -. 07359 | , 11044 |
| VAR00067 | -, 05585 | ,22877 | -,26805 | -, 26528 | . 35552 |
| VAR00068 | , 39300 | -,21403 | . 02257 | -,50929 | -, 15560 |
| VAR00069 | -. 21585 | . 46362 | -,09589 | -,00660 | -. 11617 |
| VAR00070 | , 19786 | . 12271 | ,17139 | -, 46437 | , 30226 |

Eactor 6

| VAR00035 | . 07781 |
| :---: | :---: |
| VAR00036 | -,38687 |
| VAR00037 | -, 32756 |
| VAR00038 | , 03434 |
| VAR00039 | -, 14074 |
| VAR00040 | , 16760 |
| VAR00041 | ,24087 |
| VAR00042 | -, 13718 |
| VAR00043 | , 22584 |
| VAR00044 | . 09206 |
| VAR00045 | -,25912 |
| VAR00046 | -, 18028 |
| VAR0004 7 | -, 01752 |
| VAR0004 8 | , 23805 |
| VAR0004 9 | -. 07358 |
| VAR00050 | . 19778 |
| VAR00051 | -,12040 |
| VAR00052 | , 32829 |
| VAR00053 | -. 16690 |
| VAR00054 | . 20242 |
| VAR00055 | ,12287 |
| VAR00056 | -,01970 |
| VAR00057 | -. 19271 |
| VAR00058 | , 21164 |
| VAR00059 | . 11056 |
| VAR00060 | . 08193 |
| VAR00061 | -,18844 |
| VAR00062 | , 26641 |
| VAR00063 | . 49235 |
| VAR00064 | -, 33176 |
| VAR00065 | . 02536 |
| VAR00066 | -, 21648 |
| VAR00067 | , 22305 |
| VAR00068 | -,17895 |
| VAR00069 | -. 11816 |
| VAR00070 | -,07048 |

Einal Statistics:

| Variable | Communality | * | Eactor | Eigenvalue | Pct of Var | Cum Pct |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00035 | , 52762 | * | 1 | 4,82079 | 13,4 | 13,4 |
| VAR00036 | , 42389 | * | 2 | 3,28821 | 9,1 | 22,5 |
| VAR00037 | , 43477 | * | 3 | 2,30918 | 6,4 | 28,9 |
| VAR00038 | , 61618 | * | 4 | 1,77806 | 4,9 | 33,9 |
| VAR00039 | , 55837 | * | 5 | 1,62744 | 4,5 | 38,4 |
| VAR00040 | , 35346 | * | 6 | 1,56417 | 4,3 | 42,7 |
| VAR00041 | . 45768 | * |  |  |  |  |
| VAR00042 | , 37831 | * |  |  |  |  |


| VAR00043 | , 40342 | $*$ |
| :--- | :--- | :--- |
| VAR00044 | , 28663 | $*$ |
| VAR00045 | , 49808 | $*$ |
| VAR00046 | , 45903 | $*$ |
| VAR00047 | , 52333 | $*$ |
| VAR00048 | , 66103 | $*$ |
| VAR00049 | , 34969 | $*$ |
| VAR00050 | , 53537 | $*$ |
| VAR00051 | , 35767 | $*$ |
| VAR00052 | , 32076 | $*$ |
| VAR00053 | , 30291 | $*$ |
| VAR00054 | , 46144 | $*$ |
| VAR00055 | , 23331 | $*$ |
| VAR00056 | , 44604 | $*$ |
| VAR00057 | , 44716 | $*$ |
| VAR00058 | , 49875 | $*$ |
| VAR00059 | , 39554 | $*$ |
| VAR00060 | , 42693 | $*$ |
| VAR00061 | , 53065 | $*$ |
| VAR00062 | , 33924 | $*$ |
| VAR00063 | , 38012 | $*$ |
| VAR00064 | , 30779 | $*$ |
| VAR00065 | , 43460 | $*$ |
| VAR00066 | , 45410 | $*$ |
| VAR00067 | , 37382 | $*$ |
| VAR00068 | , 51638 | $*$ |
| VAR00069 | , 29823 | $*$ |
| VAR00070 | , 39555 | $*$ |

VARIMAX rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.
VARIMAX converged in 10 iterations.

Rotated Factor Matrix:

|  | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00035 | , 50552 | . 46070 | -, 01634 | . 05864 | , 19947 |
| VAR00036 | -,09519 | . 05468 | , 16631 | -. 05203 | , 61502 |
| VAR00037 | -,05523 | -,02055 | , 09425 | -. 08946 | . 64309 |
| VAR00038 | , 07096 | -,03743 | . 76129 | . 05627 | . 15263 |
| VAR00039 | -,13692 | , 04409 | , 66064 | . 05193 | , 30740 |
| VAR00040 | , 12922 | . 07734 | . 15109 | . 29998 | . 04473 |
| VAR00041 | , 29402 | , 45295 | -,33698 | -. 16271 | -, 12020 |
| VAR00042 | -,01952 | , 45133 | -,18411 | , 15103 | -, 22449 |
| VAR00043 | , 04161 | -,08338 | -,13527 | -,06628 | , 22690 |
| VAR00044 | , 09968 | . 43408 | . 06465 | , 20503 | -, 17274 |
| VAR00045 | , 25131 | . 42845 | -,18055 | , 39810 | ,24399 |
| VAR00046 | , 33497 | . 04295 | -. 07251 | . 58066 | . 05053 |
| VAR00047 | -,09143 | , 43608 | , 01768 | . 40758 | , 02319 |
| VAR00048 | , 08266 | -, 21948 | . 76428 | -,10889 | -. 09998 |
| VAR0004 9 | . 40785 | -. 07757 | -. 12053 | . 09979 | , 37726 |
| VAR00050 | , 67309 | . 25530 | ,10697 | -,02308 | , 00200 |
| VAR00051 | , 25116 | , 20885 | -,13470 | . 44378 | -. 14445 |
| VAR00052 | , 21680 | , 05280 | , 23748 | , 03249 | . 03675 |
| VAR00053 | , 01091 | , 50964 | , 05781 | . 02374 | . 04632 |
| VAR00054 | , 54767 | , 30614 | , 09586 | . 11941 | -. 19673 |
| VAR00055 | . 43861 | , 03640 | , 01065 | . 10193 | -. 13328 |
| VAR00056 | . 09765 | , 65744 | -,04849 | -,01259 | -. 01229 |
| VAR00057 | ,17881 | -. 12534 | . 19403 | , 45122 | , 34414 |
| VAR00058 | , 59391 | . 24923 | -. 11085 | , 16909 | , 02006 |
| VAR00059 | . 09418 | , 38636 | -, 30608 | -, 30963 | . 15384 |
| VAR00060 | , 60264 | -. 10230 | , 02769 | , 21532 | , 07804 |
| VAR00061 | ,19965 | -. 24285 | -,41253 | , 10083 | , 47277 |
| VAR00062 | , 52346 | -,04082 | -,09176 | , 02581 | , 04586 |
| VAR00063 | , 06026 | -, 11912 | , 28552 | -. 15517 | -,14566 |
| VAR00064 | , 17100 | , 28256 | , 12625 | , 27272 | , 24481 |
| VAR00065 | , 11476 | -,04347 | -,19683 | , 04968 | , 40702 |
| VAR00066 | , 22615 | , 18867 | , 15937 | , 48180 | , 29831 |
| VAR00067 | -, 20627 | -. 10726 | -,10180 | , 10869 | -,06030 |
| VAR00068 | , 22988 | -. 05038 | -,26616 | , 56467 | -, 20047 |
| VAR00069 | -. 07990 | -, 36057 | , 16560 | -,01658 | , 34770 |
| VAR00070 | -,11391 | , 02941 | , 09770 | , 55690 | -,15490 |

Eactor 6

| VAR00035 | , 12778 |
| :---: | :---: |
| VAR00036 | -. 05685 |
| VAROC037 | . 02910 |
| VARO-238 | , 06091 |
| VARCO39 | . 06351 |
| VAROC040 | . 46472 |
| VAR00041 | . 10765 |
| VAR00042 | -. 25908 |
| VAR00043 | , 56618 |
| VAR00044 | , 11048 |
| VAR00045 | . 02726 |
| VAR00046 | -, 00355 |
| VAR00047 | , 39728 |
| VAR00048 | . 00703 |
| VAR0004 9 | . 10258 |
| VAR00050 | -. 07186 |
| VAR00051 | -, 12257 |
| VAR00052 | . 46062 |
| VAR00053 | -. 19236 |
| VAR00054 | -. 07504 |
| VAR00055 | -. 10647 |
| VAR00056 | -, 04020 |
| VAR00057 | . 19948 |
| VAR00058 | . 20647 |
| VAR00059 | . 15550 |
| VAR00060 | , 00769 |
| VAR00061 | . 16719 |
| VAR00062 | , 22885 |
| VAR00063 | , 48526 |
| VAR00064 | -. 22016 |
| VAR00065 | . 46116 |
| VAR00066 | . 14436 |
| VAR00067 | , 54218 |
| VAR00068 | -,17640 |
| VAR00069 | , 11507 |
| VAR00070 | ,19503 |

Factor Transformation Matrix:

|  |  | Factor 1 | Eactor 2 | Factor 3 | Factor 4 | Factor 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Factor | 1 | . 67992 | , 50578 | -,15485 | . 47482 | , 10884 |
| Factor | 2 | , 08484 | -, 36941 | , 49949 | , 15036 | . 57087 |
| Eactor | 3 | . 04272 | . 18681 | , 82501 | . 19556 | -, 33577 |
| Factor | 4 | . 11062 | , 50008 | . 17484 | -,69933 | , 44986 |
| Eactor | 5 | -, 63008 | . 56524 | . 04912 | , 18339 | -,07035 |
| Eactor | 6 | , 34561 | -,05703 | , 11363 | -. 43703 | -, 58498 |
|  |  | Factor 6 |  |  | . |  |
| Eactor | 1 | , 14357 |  |  |  |  |
| Eactor | 2 | . 50828 |  |  |  |  |
| Eactor | 3 | -, 36283 |  |  |  |  |
| Eactor | 4 | -, 12520 |  |  | : |  |
| Eactor | 5 | , 49246 |  |  |  |  |
| Eactor | 6 | , 57549 |  |  |  |  |

EACTOR ANALYSIS

Eactor Score Coefficient Matrix:

|  | Factor 1 | Eactor 2 | Factor 3 | Eactor 4 | Eactor 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VAR00035 | . 12906 | .14776 | , 02115 | -,08054 | . 07565 |
| VAR00036 | -,06528 | , 07465 | . 04662 | -, 02424 | , 30762 |
| VAR00037 | -,03990 | , 03894 | . 01282 | -.,04618 | . 30849 |
| VAR00038 | , 03495 | , 02206 | , 29856 | , 00199 | , 03245 |
| VAR00039 | -. 07426 | . 08818 | , 25210 | . 02232 | . 12512 |
| VAR00040 | -. 01584 | , 02743 | . 05539 | . 09727 | -,04849 |
| VAR00041 | . 07970 | , 15507 | -,09727 | -,14836 | -,05216 |
| VAR00042 | -. 07136 | , 16341 | -,04011 | . 06449 | -,05150 |
| VAR0004 3 | -.,00176 | -,01166 | -,07263 | -,06089 | , 04027 |
| VAR00044 | -,03893 | , 16824 | . 05428 | , 05245 | -,.08882 |
| VAR00045 | -. 02294 | . 13273 | -. 05901 | , 12932 | , 12277 |
| VAR00046 | , 05353 | -,06769 | -. 03097 | , 23547 | , 00519 |
| VAR00047 | -, 17202 | , 19946 | , 01658 | . 16137 | -,02036 |
| VAR00048 | , 10223 | -,06310 | , 30271 | -,06187 | -,09012 |
| VAR00049 | . 14430 | -,08263 | -,06046 | -,00959 | . 14998 |
| VAR00050 | , 26105 | , 02823 | , 07439 | -. 11900 | -.01644 |
| VAR00051 | . 02776 | , 01026 | -. 03744 | . 17830 | -. 05930 |
| VAR00052 | , 06393 | , 02722 | , 09585 | -. 04476 | -. 05705 |
| VAR00053 | -,05982 | . 22251 | , 05261 | -,01684 | , 06554 |
| VAR00054 | . 19113 | , 04883 | . 07479 | -,03286 | -. 10557 |
| VAR00055 | . 17972 | -,05970 | , 02106 | -, 00585 | -. 07372 |
| VAR00056 | -. 04419 | , 27766 | , 02107 | -,06140 | . 02470 |
| VAR00057 | , 00982 | -,07661 | , 05198 | ,18661 | , 11502 |
| VAR00058 | . 18348 | , 02365 | -,02304 | -,02416 | -,03287 |
| VAR00059 | , 00845 | , 17797 | -,10145 | -, 19469 | , 08299 |
| VAR00060 | , 23755 | -,13672 | , 01263 | . 02787 | -,00154 |
| VAR00061 | . 06330 | -. 13827 | -,19656 | , 03133 | , 20247 |
| VAR00062 | . 21036 | -. 08402 | -. 03211 | -,06642 | -,03104 |
| VAR00063 | , 05525 | -,02012 | , 11158 | -. 10290 | -,14773 |
| VAR00064 | -,00208 | , 09328 | , 05968 | . 09591 | , 14175 |
| VAR00065 | . 00240 | -,01176 | -,10084 | -. 01310 | . 13967 |
| VAR00066 | -.,01265 | , 04946 | , 05873 | , 17754 | . 11177 |
| VAR00067 | -, 11179 | -,01251 | -,05837 | , 06434 | -. 08847 |
| VAR00068 | , 03934 | -,12365 | -. 10485 | , 26361 | -,08677 |
| VAR00069 | -,00180 | -,12038 | . 03036 | . 01434 | . 13710 |
| VAR00070 | -,12724 | -,00221 | . 03186 | ,27601 | -,10334 |

Eactor 6

| VAR00035 | , 03513 |
| :--- | ---: |
| VAR00036 | ,- 09810 |
| VAR00037 | ,- 06009 |
| VAR00038 | ,- 00511 |
| VAR00039 | ,- 00866 |
| VAR00040 | , 21205 |
| VAR00041 | , 08861 |
| VAR00042 | ,- 08880 |
| VAR00043 | , 25981 |
| VAR00044 | , 08116 |
| VAR00045 | ,- 02634 |
| VAR00046 | ,- 04892 |
| VAR00047 | , 20218 |
| VAR00048 | ,- 00156 |
| VAR00049 | ,- 01948 |
| VAR00050 | ,- 05603 |
| VAR00051 | ,- 06689 |
| VAR00052 | , 21810 |
| VAR00053 | ,- 08398 |
| VAR00054 | ,- 03210 |
| VAR00055 | ,- 06089 |
| VAR00056 | , 00649 |
| VAR00057 | , 02079 |
| VAR00058 | , 08006 |
| VAR00059 | , 09191 |
| VAR00060 | ,- 04809 |
| VAR00061 | , 00736 |
| VAR00062 | , 08564 |
| VAR00063 | , 26144 |


| VAR00064 | -.15292 |
| :--- | ---: |
| VAR00065 | , 17751 |
| VAR00066 | , 00885 |
| VAR00067 | , 28414 |
| VAR00068 | -.10199 |
| VAR00069 | , 00214 |
| VAR00070 | , 09616 |

Covariance Matrix for Estimated Regression Eactor Scores:

|  |  | Factor 1 | Factor | 2 | Eactor | 3 | Factor | 4 | Factor | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Factor | 1 | 1,00000 |  |  |  |  |  |  |  |  |
| Factor | 2 | , 00000 | 1,00000 |  |  |  |  |  |  |  |
| Factor | 3 | . 00000 | , 00000 |  | 1,00000 |  |  |  |  |  |
| Factor | 4 | . 00000 | . 00000 |  | , 00000 |  | 1,00000 |  |  |  |
| Factor | 5 | , 00000 | , 00000 |  | , 00000 |  | , 00000 |  | 1,000 |  |
| Eactor | 6 | , 00000 | , 00000 |  | , 00000 |  | , 00000 |  | , 000 |  |
| - - - |  | - - - - | A CTO | R | A N A L Y | Y | S - - | - | - - |  |
|  |  | Factor 6 |  |  |  |  |  |  |  |  |
| Factor | 6 | 1,00000 |  |  |  |  |  |  |  |  |
| 6 PC |  | factor | s will b | be | red. |  |  |  |  |  |

Following factor scores will be added to the working file:

| Name | Label |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| EAC1_4 | REGR factor score | 1 | for analysis | 1 |
| EAC2-4 | REGR factor score | 2 for analysis | 1 |  |
| EAC3-4 | REGR factor score | 3 for analysis | 1 |  |
| FAC4-4 | REGR factor score | 4 | for analysis | 1 |
| EAC5-4 | REGR factor score | 5 | for analysis | 1 |
| EAC6_4 | REGR factor score | 6 for analysis | 1 |  |

### 7.6. APPENDIX VI: DISRIMINANT ANALYSIS OUTPUTS

```
    DISCRIMINANTANAIYSIS
On groups defined by DEALPRON dealproneness
    197 (Unweighted) cases were processed.
    46 of these were excluded from the analysis.
            O had missing or out-of-range group codes.
            4 4 \text { had at least one missing discriminating variable.}
            2 had both
151 (Unweighted) cases will be used in the analysis.
```

Number of cases by group

|  | Number of cases |  |  |
| ---: | ---: | ---: | ---: |
| DEALPRON | Unweighted | Weighted |  |
| 1 | 36 | 36,0 |  |
| 2 | 115 | 115,0 |  |
|  |  |  |  |


| Group means |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| DEALPRON | FAC1_4 | EAC2_4 | FAC3_4 | EAC4_4 |
| 1 | ,- 70538 | ,- 58855 | , 03418 | ,- 34274 |
| 2 | , 25917 | , 23010 | , 06266 | , 06823 |
| Total | , 02921 | , 03493 | , 05587 | ,- 02975 |
| DEALPRON | EAC5_4 | EAC6_4 |  |  |
| 1 | ,- 39678 | ,- 20967 |  |  |
| 2 | , 0889 |  |  |  |

Group standard deviations

| DEALPRON | EAC1_4 | EAC2_4 | EAC3_4 | EAC4_4 |
| ---: | ---: | ---: | ---: | ---: |
| 1 | 1,11383 | 1,05656 | 1,07543 | , 99711 |
| 2 | 1,04639 | , 88039 | , 92114 | , 99255 |
| Total | 1,00198 | , 98592 |  |  |
|  |  |  |  |  |
| DEALPRON | EAC5_4 | EAC6_4 |  |  |
| 1 | 1,28047 |  |  |  |
| 2 | , 85427 | 1,23414 |  |  |
| Total | , 99706 | 1,93640 |  |  |

Pooled within-groups correlation matrix
EAC1_4 1,00000
EAC2_4 -, $23477 \quad 1,00000$
EAC3 4 -,02253 -,00213 1,00000

| FAC4-4 | ,- 03214 | ,- 06414 | , 03883 | 1,00000 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| EAC5_4 | , 00404 | ,- 03222 | ,- 01364 | ,- 06895 | 1,00000 |

```
On groups defined by DEALPRON dealproneness
```

```
Analysis number 1
Direct method: all variables passing the tolerance test are entered.
    Minimum tolerance level.................. ,00100
Canonical Discriminant Eunctions
    Maximum number of functions.............. 1
    Minimum cumulative percent of variance... 100,00
    Maximum significance of Wilks' Lambda.... 1,0000
Prior probability for each group is ,50000
Canonical Discriminant Eunctions
```



Standardized canonical discriminant function coefficients

Eunc 1

| EAC1_4 | , 76516 |
| :--- | :--- |
| FAC2_4 | , 70259 |
| EAC3-4 | , 04638 |
| EAC4_4 | , 31530 |
| EAC5-4 | , 36158 |
| FAC6_4 | , 25692 |

structure matrix:

Pooled within-groups correlations between discriminating variables and canonical discriminant functions
(Variables ordered by size of correlation within function)
Eunc 1

| EAC1_4 | , 57138 |
| :--- | :--- |
| EAC2-4 | , 48048 |
| EAC5-4 | , 31184 |
| EAC4_4 | , 22450 |
| EAC6-4 | , 15933 |
| EAC3_4 | , 01611 |

Unstandardized canonical discriminant function coefficients

Eunc 1

| EAC1_4 | , 8350977 |
| :--- | :--- |
| EAC2_4 | , 7597223 |
| EAC3-4 | , 0483281 |
| EAC4-4 | , 3173249 |
| EAC5-4 | .3722471 |
| EAC6_4 | , 2533156 |
| (Constant) | ,- 0590207 |

Canonical discriminant functions evaluated at group means (group centroids)
Group Eunc 1


Histogram for group 2

Canonical Discriminant Function 1


Histogram for ungrouped cases
Canonical Discriminant Eunction 1


- All-groups Stacked Histogram

Canonical Discriminant Eunction 1


Classification results -

| Actual Group |  | No. of Cases | $\begin{gathered} \text { Predicted } \\ 1 \end{gathered}$ | Group Membership $2$ |
| :---: | :---: | :---: | :---: | :---: |
| Group | 1 | 36 | 27 | 9 |
|  |  |  | 75,0\% | 25,0\% |
| Group | 2 | 115 | 22 | 93 |
|  |  |  | 19,1\% | 80,9\% |

Percent of "grouped" cases correctly classified: 79,47\%
Classification processing summary
197 (Unweighted) cases were processed.
0 cases were excluded for missing or out-of-range group codes.
46 cases had at least one missing discriminating variable.
151 (Unweighted) cases were used for printed output.


[^0]:    * Scale values: $1=$ Strongly not prefer, $2=$ Not prefer, $3=$ Prefer, $4=$ Strongly prefer

[^1]:    * Scale values: 1= Strongly not prefer, 2= Not prefer, 3=Prefer, 4= Strongly prefer

[^2]:    EACTOR ANALYSIS

