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HOW DOES CUSTOMER-BASED BRAND EQUITY CHANGE AS THE RESULT OF AN EXPOSURE TO ONLINE AND OFFLINE ADVERTISING?

Master's Thesis

ÇİĞDEM YÜKSEL

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Thesis Supervisor: ASSIST. PROF. ELİF KARAOSMANOĞLU

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ABSTRACT

HOW DOES CUSTOMER-BASED BRAND EQUITY CHANGE AS THE RESULT
OF AN EXPOSURE TO ONLINE AND OFFLINE ADVERTISING?

Yüksel, Çiğdem

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Without a recognizable brand, a product is just a mere commodity (Shimp 2007). The incremental utility or value added to a product by its brand name is brand equity (Farquhar, Han, and Ijiri 1991; Kamakura and Russell 1993; Park and Srinivasan 1994; Rangaswamy, Burke, and Oliva 1993). By studying brand equity, its antecedents and consequences, marketers can have the knowledge to develop best marketing mix to create, change, maintain or strength the brand's positioning to create desired responses because from a behavioral viewpoint, brand equity is critically important to make points of differentiation that lead to competitive advantages based on nonprice competition (Aaker 1991).

The present study attempts to investigate the relationship among advertising and customer-based brand equity to gain a clear understanding of how customer-based brand equity is influenced by advertising efforts. This study also aims to find out whether offline and online advertising will have different effects on building customer-based brand equity.

Print ad as a form of offline advertising and internet ad as a form of online advertising are selected for the research. Based on the results of this study, it is seen that advertising influences customer-based brand equity with its direct and indirect effects on the dimensions of customer-based brand equity. When the effects of internet advertising and print advertising on customer-based brand equity are compared, the results point out that the contribution of print advertising is greater than the contribution of internet advertising on cognitive dimension. On affective dimension, the effectiveness of print and internet advertising on customer-based brand equity changes.

Key Words: Customer-Based Brand Equity, Advertising, Online Advertising, Internet Advertising, Offline Advertising, Traditional Advertising, Print Advertising, Brand Image, Brand Loyalty, Brand Awareness.

ÖZET

ÇEVRİMİÇİ VE ÇEVRİMDIŞI REKLAMA MARUZ KALMA SONUCUNDA
TÜKETİCİ TEMELLİ MARKA DEĞERİ NASIL DEĞİŞİYOR?

Yüksel, Çiğdem

Pazarlama

Tez Danışmanı: Yrd. Doç. Dr. Elif Karaosmanoğlu

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Tanınabilir bir markaya sahip olmayan ürün, yalnızca bir metadır (Shimp 2007). Marka ismi tarafından ürüne verilen katma değere marka değeri denmektedir (Farquhar, Han, and Ijiri 1991; Kamakura and Russell 1993; Park and Srinivasan 1994; Rangaswamy, Burke, and Oliva 1993). Pazarlamacılar, tüketici temelli marka değerini, onu oluşturan faktörleri ve sonuçlarını anlamaya çalışarak, markayı tüketici zihninde konumlandırmayı başaracak, var olan konumlandırmayı sürdürecek, güçlendirecek ya da değiştirecek pazarlama karması geliştirmek için yeterli bilgiye sahip olacaklardır. Tüketici temelli marka değeri çalışmalarının önemi büyüktür, çünkü tüketici temelli marka değeri, fiyata dayalı olmayan rekabet avantajı sağlayan bir farklılaşma noktası yaratır.

Bu çalışmanın amacı, reklamla tüketici temelli marka değeri arasıdaki ilişkiyi incelemek ve reklamın tüketici temelli marka değeri üzerindeki etkisini anlamaktır. Ayrıca bu çalışma ile, çevirimiçi ve çevrimdışı reklamların, tüketici temelli marka değeri oluşturmada farklı etkilerinin olup olmadığı analiz edilecektir.

Bu araştırmada, çevrimiçi reklam formu olarak internet reklamı ve çevrimdışı reklam formu olarak basılı reklam kullanılmaktadır. Çalışmanın sonuçları, reklamın, direkt ve dolaylı etkileriyle, tüketici temelli marka değerini etkilediğini göstermektedir. İnternet ve basılı reklamın etkileri karşılaştırıldığında, bilişsel boyutta, basılı reklamın tüketici temelli marka değerine katkısının, internet reklamının katkısından daha büyük olduğu görülmektedir. Duygusal boyutta, internet ve basılı reklamların etkileri değişmektedir.

Anahtar Kelimeler: Tüketici Temelli Marka Değeri, Reklam, Çevrimiçi Reklam, İnternet Reklamı, Çevrimdışı Reklam, Geleneksel Reklam, Basılı Reklam, Marka İmajı, Marka Sadakati, Marka Farkındalığı.

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1. INTRODUCTION

Although the words "brand" and "product" are sometimes used interchangeably, their meanings are different. A product is "something that offers a functional benefit" (Farquhar 1989, p.24), however, a brand is "a name, symbol, design, or mark that enhances the value of a product beyond its functional value" (Farquhar 1989, p.24).

When a marketing entity (a product, a retail outlet, a service, or even a geographical place) receives its own name, term, sign, symbol, design, or any particular combination of these elements as a form of identification, a brand exists (Shimp 2007, p.34). As Shimp (2007) explained, a brand is a company's particular offering stands for in comparison to other brands by representing a set of values that its marketers, senior company officials, and other employees consistently embrace and communicate for an extended period and without a recognizable brand, a product is just a mere commodity.

Brands have embraced and communicated a particular set of values and at last they are identified with those values: Volvo is synonymous with safety; Harley-Davidson is identified with freedom and rugged individualism; Absolut vodka encapsulates hipness; Sony represents high quality and dependability (Shimp 2007, p.34).

Creating a new brand is quite costly and risky. Moreover bringing a new brand to market has a 50 percent of failure (Crawford 1993). That is why companies prefer to acquire existing brands instead of creating a new one. Companies and consumers are ready to pay premium prices for brand names because as Aaker (1991) stated, a brand name gives an "added value" to a product. The incremental utility or value added to a product by its brand name is brand equity (Farquhar, Han, and Ijiri 1991; Kamakura and Russell 1993; Park and Srinivasan 1994; Rangaswamy, Burke, and Oliva 1993). Brand equity is defined in terms of the certain outcomes result from the marketing of a product or service because of its brand name that would not occur if the same product or service did not have that name (Keller 1993).

There are two different perspectives on brand equity: a firm-based perspective and a customer-based perspective (Shimp 2007, p.34). As Shimp (2007, p.34) explained, the firm-based viewpoint of brand equity focuses on outcomes extending from efforts to enhance a brand's value to its various stakeholders and as the value, or equity, of a brand increases, various positive outcomes result such as (1) achieving a higher market share, (2) increasing brand loyalty, (3) being able to charge premium prices, and (4) earning a revenue premium (Shimp 2007, p.34).

Brand equity creates value for the firm as well as for the customer (Aaker 1991). Brand equity;

- affects merger and acquisition decision making (Mahajan, Rao, and Srivastava 1994) and stock market responses (Lane and Jacobson 1995; Simon and Sullivan 1993)
- determines the extendibility of a brand name (Rangaswamy et al. 1993)
- increases the probability of brand choice, willingness to pay premium prices, marketing communication effectiveness, and brand licensing opportunities, and decreases vulnerability to competitive marketing actions and elastic responses to price increases (Barwise 1993; Farquhar et al. 1991; Keller 1993; Simon and Sullivan 1993; Smith and Park 1992).

From the perspective of the customer, a brand possesses equity to the extent that people are familiar with the brand and have stored in memory favorable, strong, and unique associations (Keller 2003). The particular thoughts and feelings that consumers have linked in memory with a particular brand are called as associations (Shimp 2007, p.34).

As Keller (1993) stated, there have been two general motivations for studying brand equity: financially based and strategy-based motivations. For financially based motivation, the aim of the study is to estimate the value of a brand more precisely for accounting purposes (in terms of asset valuation for the balance sheet) or for merger, acquisition, or divestiture purposes (Keller 1993). Studying brand equity from a strategy-based motivation aims to improve marketing productivity (Keller 1993). In today's world of marketing, there is great competition among companies. This

competition creates a need to increase the efficiency of marketing expenses. Understanding consumer behavior is the most important tool to develop better marketing strategies. Before taking strategic decisions, marketers need to find out how their brand is positioned in the consumer's mind, which marketing mix constitutes this positioning, and how this positioning affects consumer behavior. By studying brand equity, its antecedents and consequences, marketers can have the knowledge to develop best marketing mix to create, change, maintain or strength the brand's positioning to create desired responses because from a behavioral viewpoint, brand equity is critically important to make points of differentiation that lead to competitive advantages based on nonprice competition (Aaker 1991). Brand names add value for both the firm and consumer. Studying brand equity from the perspective of the consumer to understand how brand is located in consumer's mind and its impact on consumer behavior is crucial because as Farquhar (1989) and Crimmins (1992) explained there is value to the investor, the manufacturer, and the retailer only if there is value to the consumer.

Because customer-based brand equity is a multidimensional concept, creating, maintaining and expanding brand equity is only possible with strengthening its dimensions (Aaker 1991, 1996). According to Aaker's (1991) conceptualization customer-based brand equity consists of brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets. Shocker and Weitz (1988) propose brand loyalty and brand associations, and Keller (1993) proposes brand knowledge, comprising brand awareness and brand image as the dimensions of customer-based brand equity.

There are several antecedents of brand equity dimensions. Any marketing action which represents the effect of accumulated marketing investments into the brand has the potential to affect brand equity (Yoo, Donthu, and Lee 2000). Simon and Sullivan (1993) list advertising expenditures, sales force and marketing research expenditures, age of the brand, advertising share, order of entry, and product portfolio as sources of brand equity. Other marketing activities such as the use of public relations (Aaker 1991); warranties (Boulding and Kirmani 1993); slogans or jingles, symbols, and packages (Aaker 1991); company image, country of origin, and promotional events

(Keller 1993); and brand-naming strategy (Keller, Heckler, and Houston 1998) have also been proposed as sources of brand equity.

The incremental utility or value added is referred to as "brand equity" (Farquhar, Han, and Ijiri 1991; Kamakura and Russell 1993; Park and Srinivasan 1994; Rangaswamy, Burke, and Oliva 1993). From a managerial perspective, the question of how the added value is created should be answered. According to Prentice (as cited in Ryan 1991, p.19):

> *"The consumer's perception of brand value comes from many sources, but essentially it is based on ideas – rational or emotional-that set the brand apart from competitive brands. What kinds of marketing activities implant these ideas about a brand's uniqueness in the mind?... Advertising is the most common."*

Advertising is regarded as one of the major contributors of brand equity with its influence on creating and increasing the probability that the brand is included in the consumer's evoked set and with its contribution to brand associations which, when stored in accessible memory, translate into "non-conscious but reliable behavioral predispositions" (Krishnan and Chakravarti 1993, p. 214).

There have been several researches that list advertising as a contributor to customer-based brand equity. The present study attempts to investigate the relationship among advertising and customer-based brand equity to gain a clear understanding of how customer-based brand equity is influenced by advertising efforts. This study also aims to find out whether traditional advertising and internet advertising will have different effects on building customer-based brand equity.

Based on the review of the literature, a conceptual framework, including model of theoretical relations among advertising and the dimensions of customer-based brand equity and research hypotheses related to these relations, were established. To test the model of theoretical relations and research hypotheses, survey research was conducted. According to the findings gained from the survey research, a conclusion was drawn and managerial implications were proposed about the influences of advertising efforts on

customer-based brand equity and the differential effects of internet and traditional advertising.

Next section will review existing literature and discuss general conceptualization of customer-based brand equity, by explaining its definition, dimensions, and how it is measured based.

Third section will present the contribution of advertising to customer-based brand equity. In that section literature about the definition of advertising, advertising media, choosing the media to deliver the message and measuring the impacts of advertising will be reviewed.

Fourth section will provide the theoretical framework of the present research, by explaining the purpose and scope of the research and methodology of the research. The results of the analyses, conducted to test the hypothesized relationship between advertising and customer-based brand equity dimensions are included in the fifth section. It starts with the findings related to the demographic structure of the research sample, and then continues with the statistical analysis of the data, comprising construct validity and reliability analyses of research variables and hypotheses testing. The section of hypotheses testing includes testing of the hypotheses related to theoretical relationship proposed in our model and testing of control variables to understand the effects of those variables on this process. In line with the aim of the present research we conducted the same analyses to test the media-based hypotheses, and then we included media and brand-based analyses. The case of print ad, the case of internet ad, the case Turkcell's internet ad, the case of Turkcell's print ad, the case of Vodafone's print ad and the case of Vodafone's internet ad are the cases included in fifth section. This part of the research examines the relationship between advertising and customer-based brand equity dimensions and whether this relationship changes according to the media.

The last section of the research presents the conclusion based on the results of the analyses conducted. This section combines the findings gained from the survey research with the literature review and provides managerial implications and recommendations.

2. GENERAL CONCEPTUALIZATION OF CUSTOMER-BASED BRAND EQUITY

In this section we will present the definition of customer-based brand equity and its dimensions according to the conceptualization of Keller (1993). Lastly, we will give insights about the measurement of customer-based brand equity.

2.1. DEFINITION OF CUSTOMER-BASED BRAND EQUITY

Keller (1993) defined customer-based brand equity as the differential effect of brand knowledge on consumer response to the marketing of the brand. The concepts are explained as follows:

> *"**Differential effect** is determined by comparing consumer response to the marketing of a brand with the response to the same marketing of a fictitiously named or unnamed version of the product or service. **Brand knowledge** is defined in terms of brand awareness and brand image. **Consumer response to marketing** includes consumer perceptions, preferences, and behavior arising from marketing mix activity (e.g., brand choice, comprehension of copy points from an ad, reactions to a coupon promotion, or evaluations of a proposed brand extension)."* (Keller 1993, p.8)

According to Keller's (1993) explanation, brand knowledge comprises two components, brand awareness and brand image. Brand awareness is defined in terms of brand recall and recognition performance by consumers. The set of associations linked to the brand that consumers hold in memory comprise brand image. When the consumer is familiar with the brand and holds some favorable, strong, and unique brand associations in memory, customer-based brand equity occurs (Keller 1993).

According to Keller's (1993) conceptualization of customer-based brand equity, marketers pay particular attention to the impact of marketing activities on brand knowledge and how changes in brand knowledge affects consumer behavior. Marketers must be aware of the fact that the knowledge about the brand which has been established by marketing activities has a significant impact on the long-term success of marketing programs (Keller 1993). Applied marketing programs affects brand knowledge by shaping the content and structure of memory for the brand and brand knowledge affects the effectiveness of future brand strategies by affecting consumer

responses. Marketers needs to understand the current brand knowledge – awareness level of the brand and brand associations that consumers hold-, and the affect of marketing activities on it for an effective brand management.

2.2. DIMENSIONS OF CUSTOMER-BASED BRAND EQUITY

2.2.1. Brand Knowledge

A brand can be defined as "a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors" (Kotler 1991; p. 442). As Keller (1993) explained, developing broader perspectives toward brand knowledge is important given the reality (1) that marketing activity creates or affects multiple dimensions of brand knowledge and (2) that multiple dimensions of brand knowledge, in turn, influence consumer response to marketing activity. Brand knowledge is proposed as a source of brand equity because the content and structure of brand knowledge influence what comes to mind when a consumer thinks about a brand (Keller 1993).

With all descriptive and evaluative brand-related information, consumer brand knowledge creates the personal meaning about a brand in consumer's memory and is related to the cognitive presentation of the brand (Peter and Olson 2001). To understand brand knowledge and its relation with brand equity, some basic memory principles can be used (Keller 1993). Associative model formulation is one of the most widely accepted conceptualizations of memory structure (Anderson 1983; Wyer and Srull 1989). Associative network memory model represents each concept, idea, or piece of information stored in memory as a node and each node or idea is connected to other nodes by links referred to as associations (Anderson 1983, 1993). All the nodes and all the associations between these nodes constitute a complex associative network. Every piece of information in associative network is interrelated with other pieces. Closely related ideas are connected directly by a single association; however, ideas that are less

closely related are connected by a series of associations between many related concepts (Kardes 2001).

Retrieving information from memory begins with activation that is the transfer of the information from long-term memory to active short-term memory (Kardes 2001). Because each node is connected to other nodes, when one node is activated other closely related nodes are activated also. When the activation of other nodes exceeds some threshold level, the information contained in that node is recalled (Keller 1993). Therefore, the extent of spreading activation and the retrieval of particular information are determined by the strength of associations between the activated node and other linked nodes (Keller 1993). So the most activation will be received by the concepts that are strongly connected to the activated node.

According to associative network memory model, the information which is recalled about a brand is determined by the strength and organization of brand associations. As Keller (1993) explained, the strength of an association depends on how information is initially processed as it enters consumers' memory and where it actually located as a result. As the strength of a brand association increases, the likelihood of retrieving information and the extent of spreading activation increase. Accessible brand information in memory is the source of brand equity.

Brand nodes which are connected to each other by other links, associations comprise brand knowledge and as seen in figure 2.1, the relevant dimensions that distinguish brand knowledge and affect consumer response are the awareness of the brand (in terms of brand recall and recognition) and the favorability, strength, and uniqueness of the brand associations in consumer memory (Keller 1993).
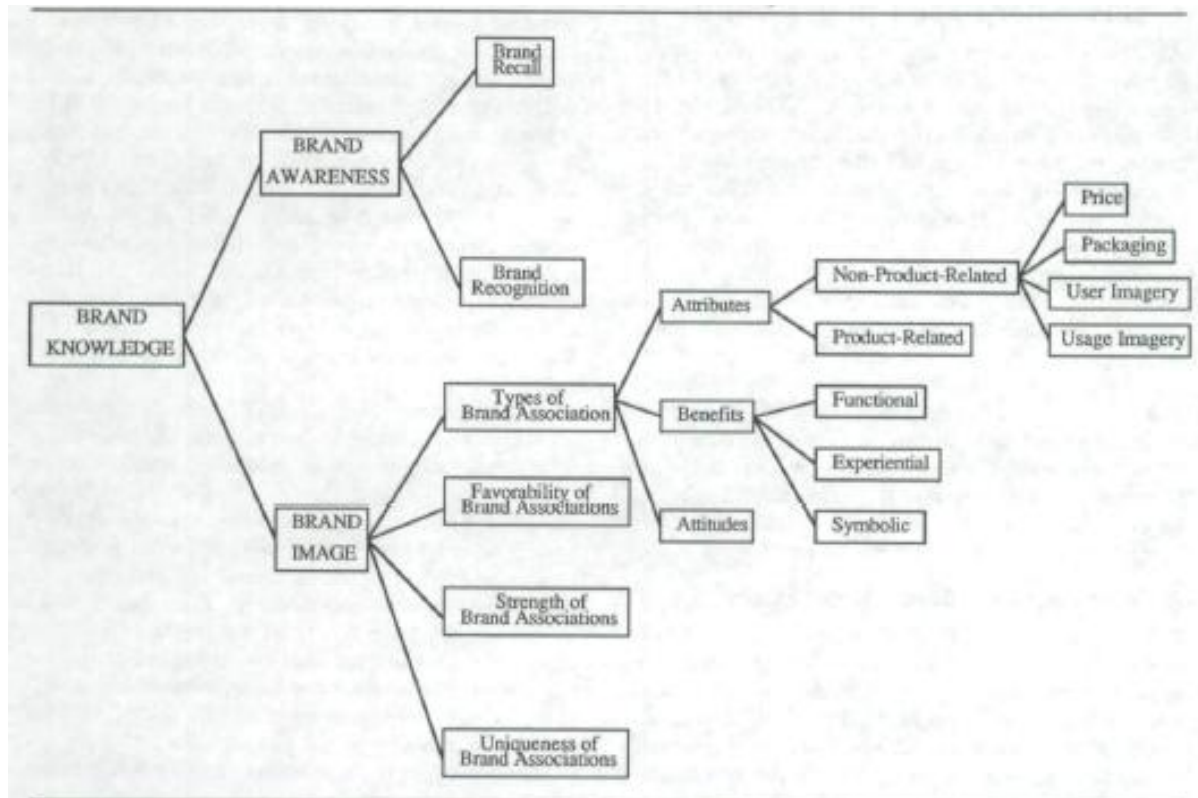
Figure 2.1 : Dimension of Brand Knowledge
Source : Keller, K. L., Conceptualizing, Measuring, and Managing Customer-Based Brand Equity (1993), 7.

2.2.1.1. Brand Awareness

Brand awareness relates to the likelihood that a brand will come to mind and the ease with which it does so given different types of cues (Keller 1993). Consumer's ability to identify various brand elements is determined by the strength of the brand in memory (Rossiter and Percy 1987). Brand awareness consists of brand recognition and brand recall performance. Keller (1993) explained brand recognition as consumers' ability to confirm prior exposure to the brand when given the brand as a cue. Brand recall relates to consumers' ability to retrieve the brand when given the product category, the needs fulfilled by the category, or some other type of probe as a cue (Keller 1993). By taking these explanations into consideration, it can be stated that brand recognition reflects a relatively superficial level of awareness, whereas brand recall indicates a deeper form.

From the vantage point of an individual consumer, a brand has no equity unless the consumer is at least aware of the brand (Shimp 2007, p.34). When a new brand is brought into the market, the initial challenge is to achieve brand awareness. All established brands in the market have faced the same challenge to maintain high levels of brand awareness (See Figure 2.2). The aim of marketers is to move brands from a state of unawareness, to recognition, on to recall, and ultimately to top-of-mind awareness (TOMA) which exists when a when a brand is the first brand that consumers recall when thinking about brands in a particular product category (Shimp 2007, p.34)
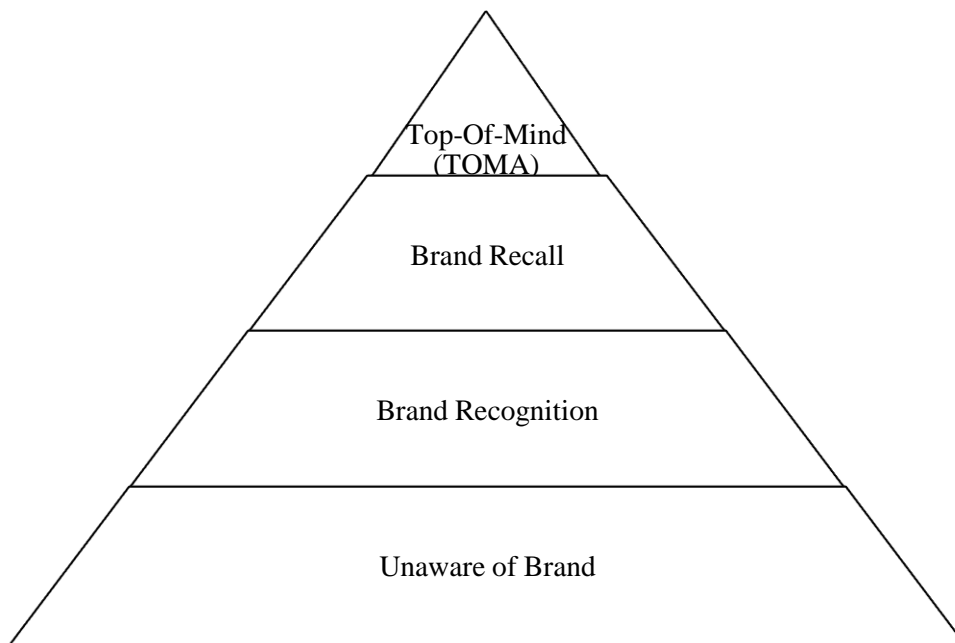
Figure 2.2 : Brand Awareness Pyramid
Source: David A. Aaker, Managing Brand Equity (New York: Free Press, 1991), 62.

Brand awareness has an important role in consumer decision making because;

- Raising brand awareness increases the likelihood that the brand will be a member of the consideration set (Baker et al. 1986; Nedungadi 1990), and even if there are essentially no other brand associations, brand awareness can affect decisions about brands in the consideration set (Keller 1993).
- Consumers have been shown to adopt a decision rule to buy only familiar, well-established brands (Jacoby, Syzabillo, and Busato-Schach 1977; Roselius 1971).

Consumers may base choices on brand awareness considerations in low involvement decision settings, even in the absence of a well-formed attitude (Bettman and Park 1980; Hoyer and Brown 1990; Park and Lessig 1981; Petty and Cacioppo 1986).

- Brand awareness affects brand image with its impact on the formation and strength of brand associations because when a brand node is established in memory, the nature of that node affects how easily different kinds of information can become attached to the brand (Keller 1993).

Recognizing a brand is easier than recalling it from memory. The relative importance of brand recall and recognition is determined by the extent to which consumers make decisions in the store (where they potentially may be exposed to the brand) versus outside the store, among other factors (Bettman 1979; Rossiter and Percy 1987). When consumers make decisions in the store, recognizing the brands may become sufficient to base choices which means that brand recognition may become more important in these situations. If decisions are made outside the store, a deeper form of awareness is needed which means that brand recall may become more important. For this reason, brand recall is critical for service and online brands: because consumers must be able to retrieve it from memory when it is needed (Keller 2003).

2.2.1.2. Brand Image

Communicating a brand image to a target market has been regarded as an important marketing activity (Gardner and Levy 1955; Grubb and Grathwhol 1967; Moran 1973; Reynolds and Gutman 1984; White 1959). A well-communicated image should help establish a brand's position, insulate the brand from competition (Oxenfeldt and Swann 1964), and therefore enhance the brand's market performance (Shocker and Srinivasan 1979; Wind 1973) by enabling consumers to identify the needs that brand satisfies.

Although brand image is regarded as an important concept, there is less agreement on its definition. In the early stage of brand image research and development, Gardner and Levy (1955) explained that products have a social and psychological nature as well as a

physical one. Bird, Channon, and Ehrenberg (1970) defined brand image as "an attitude about a given brand" in the late 1960s and early 1970s. In the late 1970s, Gensch (1978) linked brand image with brand preference by proposing that brand preference is a function of the perception space associated with other brands. Since the 1980s, with the domination of attitude-based image research, and an interest in linking psychological concepts to strategic research in brand management has emerged (Zinkhan and Hirschheim 1992). As the researches continued, brand image is considered as the key component of brand equity (Keller 1993).

Consistent with the associative network memory model of brand knowledge, brand image is defined as a set of associations linked to the brand that consumers hold in memory (Keller 1993). The favorability, strength, and uniqueness of brand associations play an important role in determining consumer responses resulting from the differential effect of brand knowledge, especially in high involvement decision settings (Keller 1993). When strong, favorable, and unique associations become linked to the brand by marketing programs, a positive brand image is created. Besides marketer-controlled sources of information, brand associations can also be created by direct experience; from information communicated by the brand from the firm or other commercial or non-partisan sources (e.g., Consumer Reports or other media vehicles) and word-of-mouth; and by assumptions of inferences from the brand itself (e.g., its name or logo) or from the identification of the brand with a company, country, channel of distribution, or some particular person, place, or event (Keller 2003).

One way to distinguish among brand associations is by their level of abstraction (Alba and Hutchinson 1987; Chattopadhyay and Alba 1988; Johnson 1984; Russo and Johnson 1980)—that is, by how much information is summarized or subsumed in the association (Keller 1993). According to this dimension, brand associations take three different forms: attributes, benefits, and attitudes.

Attributes are defined as descriptive features that characterize a product or service (Keller 1993). According to Keller's explanation, there are two types of attributes: product-related attributes and non-product related attributes. *Product-related attributes*

are defined as the ingredients necessary for performing the product or service function sought by consumers. *Non-product-related attributes* are defined as external aspects of the product or service that relate to its purchase or consumption such as price information, packaging or product appearance information, user imagery, and usage imagery.

Benefits are the personal value and meaning of the product or service attributes which consumers attach to the brand according to what the product or service can do for them (Keller 1993). Benefits are divided into three categories based on the underlying motivations to which they relate (Park, Jaworski, and Maclnnis 1986): functional benefits, experiential benefits, and symbolic benefits. *Functional benefits* are the intrinsic advantages of product or service consumption as the personal value of the product-related attributes (Keller 1993). *Experiential benefits* are the resulting feeling of the product or service consumption (Keller 1993). *Symbolic benefits* are the more extrinsic advantages of product or service consumption by corresponding to nonproduct- related attributes and relating to underlying needs for social approval or personal expression and outer directed self-esteem (Keller 1993).

Brand attitudes are defined as consumers' overall evaluations of a brand (Wilkie 1986). The importance of brand attitudes arises from the fact that attitudes shape consumer behavior (Keller 1993). Multiattribute attitude models that have been popular among marketing researchers, assumes that a consumer's attitude toward an attitude object will depend on beliefs he or she has about attributes of the object (Solomon 2004). Brand attitudes can be related to beliefs about product-related attributes and the functional and experiential benefits (Zeithaml 1988). Brand attitudes can also be related to beliefs about non-product-related attributes and symbolic benefits (Rossiter and Percy 1987) by serving as a value expressive function according to the functional theory of attitudes (Katz I960; Lutz 1991). Because of the difficulty of indicating all of the relevant attributes and benefits, researchers building multiattribute models of consumer preference have added a general component of attitude toward the brand that is not captured by the attribute or benefit values (Park 1991; Srinivasan 1979). According to the results of previous studies, attitudes can be formed by less thoughtful decision

making (Chaiken 1986; Petty and Cacioppo 1986). If consumers lack either the motivation or ability to evaluate the product or service, they may use signals or "extrinsic cues" (Olson and Jacoby 1972).

As mentioned recently, there are different types of brand associations including product-related or non-product-related attributes; functional, experiential, or symbolic benefits; and overall brand attitudes. These associations can vary according to their favorability, strength, and uniqueness.

The success of a marketing program depends on how favorable associations it creates. When favorable associations are created, consumers think that their needs and wants can be satisfied with the attributes and benefits of the brand. MacKenzie (1986) indicates that the "evaluative judgment" component of expectancy-value models of attitude (i.e., consumer perceptions of the favorability of an attribute) is both conceptually and empirically related to attribute importance. If consumers regard a specific attribute or benefit as being not important, they are unlikely to view it as very good or bad. All associations cannot be relevant and result in a purchase or consumption decision. The evaluations of brand associations may be situational or context-dependent and vary according to consumers' particular goals in their purchase or consumption decisions (Day, Shocker, and Srivastava 1979). An association may be valued in one situation but not another (Miller and Ginter 1979).

Associations can be characterized according to their strength. The strength of associations depends on the amount or *quantity* of processing the information (i.e., how much a person thinks about the information), the nature or *quality* of the processing the information (i.e., the manner in which a person thinks about the information), and how the information is maintained as part of the brand image (Keller 1993). If consumers think about product information deeply and make a connection with existing brand knowledge, strong associations can be created. As the strength of associations increases, the likelihood and the ease of retrieving information from memory become easier. Cognitive psychologists believe memory is extremely durable, so that once information becomes stored in memory its strength of association decays very slowly (Loftus and

Loftus 1980). Strongly associated reminders or retrieval cues are needed to access and retrieve information even it is "available" and potentially retrievable in memory (Tulving and Psotka 1971). The larger the number of cues linked to a piece of information increases the likelihood that the information can be recalled (Isen 1992).

The essence of brand positioning is to get a place in consumer's mind by communicating that the brand has a sustainable competitive advantage or "unique selling proposition" that gives consumers a compelling reason for buying that particular brand (Aaker 1982; Ries and Trout 1979; Wind 1982). A brand's success depends on the presence of strongly held, favorably evaluated associations that are unique to the brand and create competitive advantage among other brands (Keller 1993). The differential advantage may be based on product-related or non-product-related attributes or functional, experiential, or image benefits and may be communicated explicitly or implicitly (Keller 1993). The absence of unique associations and the occurrence of competitive overlap with other brands in the category result in consumer confusion (Keller 1993). Keller (1987) and Burke and Srull (1988) have shown that the number of competing brands advertising in a product category can affect consumers' ability to recall communication effects for a brand by creating "interference" in memory. The congruence of brand associations should affect (1) how easily an existing association can be recalled and (2) how easily additional associations can become linked to the brand node in memory (Keller 1993). The congruence among brand associations create a cohesive brand image by presenting consistent brand information and creates more holistic or gestalt reactions to the brand. The absence of congruence among brand associations results in a diffuse brand image.

A brand image is based on a variety of favorable, strong and unique associations that consumers have developed over time. Moreover, brands can be thought of as having their own unique personalities. Aaker (1997) has identified five personality dimensions that describe most brands: sincerity, excitement, competence, sophistication, and ruggedness. The five brand-related personality dimensions are described and illustrated as follows:

1. Sincerity- This dimension includes brands that are perceived as being down-to-earth, honest, wholesome, and cheerful.
2. Excitement- Brands scoring high on the excitement dimension are perceived as daring, spirited, imaginative, and up-to-date.
3. Competence- Brands scoring high on this personality dimension are considered reliable, intelligent, and successful.
4. Sophistication- Brands that are considered upper class and charming score high on the sophistication dimension.
5. Ruggedness: Rugged brands are thought of as tough and outdoorsy (Aaker 1997).

Brands can be described as possessing some degree of each of these dimensions, ranging from "the dimension doesn't describe the brand at all" to "the dimension captures the brand's essence." For example, one brand may be regarded as high in sincerity and competence but low in sophistication, excitement and ruggedness. Another brand may epitomize sophistication and excitement but be regarded as lacking in all other dimensions.

All the attributes and benefits that are associated with a brand, and attitudes toward that brand constitute brand associations. Those associations, their favorability, strength and uniqueness and personalities of brands create an image which becomes a source of brand equity by being a dimension of brand knowledge.

2.3. MEASURING CUSTOMER-BASED BRAND EQUITY

Measuring brand equity requires understanding what consumers know, think, and feel about various brands by measuring various aspects of brand awareness and brand image that potentially can lead to the differential customer response. (Keller 2003, p.733)

Keller (1993) stated that there are two basic approaches to measuring customer-based brand equity: direct and indirect approaches.

2.3.1. Indirect Approach

This approach focuses on measuring the aspects of brand knowledge and its dimensions (brand awareness and brand image) and how they create a differential response. Because of the multidimensionality of brand knowledge, employing one measure to assess all the aspects of brand knowledge cannot be sufficient. Multiple measures must be employed.

2.3.1.1. Brand Awareness:

Quantitative measures of brand knowledge can be employed to better assess the depth and breadth of brand awareness. Brand recognition can be measured by giving consumers a set of individual items visually or orally and asking them if they think that they have previously seen or heard of these items (Keller 2003). There are two different measures of brand recall depending on the type of cues provided to consumers: unaided and aided recall. Unaided recall aims to identify only very strongest brands. Aided recall uses various types of cues to help consumer recall the brand. Brand recall measures may use progressively narrower cues such as product class, product category, and product type labels (Keller 1993). Brand recall measures can capture "top-of-mind awareness" of brands by focusing on the order of recall.

2.3.1.2. Brand Image:

Several measures can be employed to assess the characteristics and relationship among brand associations.

Qualitative research techniques can be employed to identify possible brand associations and sources of brand equity by getting an indept understanding of what brands mean to consumers. For example, free association tasks whereby subjects are asked what comes to mind when they think of the brand without any more specific probe or cue can be used and in terms of the order of elicitation can yield at least a rough measure of

strength (Keller 2003). To better understand the favorability of associations, consumers can be asked follow-up questions such as what they like best about the brand (Keller 2003). Projective techniques such as sentence completion, picture interpretation, and brand personality descriptors can also be employed to uncover the true opinions and feelings of consumers, especially if consumers are unwilling or otherwise unable to express themselves (Levy 1978, 1981, 1985).

Whereas qualitative research techniques are useful to capture different types of brand associations, quantitative research techniques are a means to better assess the strength, favorability, and uniqueness of brand associations; the favorability of brand responses; and the nature of brand relationships (Keller 2003). With quantitative scales more precise and generalizable information can be obtained. *Uniqueness* of brand associations can be assessed by comparing the characteristics of associations of the focal brand (i.e., their type, favorability, and strength) with the characteristics of associations for competing brands. Additionally, consumers could be asked directly (1) how strongly they identify the brand with the product category and (2) what they consider to be the unique and shared aspects of the brand. Multivariate techniques such as multidimensional scaling also can be employed (Aaker and Day 1986).

2.3.2. Direct Approach

The "direct" approach aims to assess the impact of brand knowledge on consumer response to the marketing programs. This approach requires experiments in which one group of consumers responds to an element of the marketing program when it is attributed to the brand and another group of consumers responds to that same element when it is attributed to a fictitiously named or unnamed version of the product or service (Keller 1993). By comparing the responses of two groups the differential effect of brand knowledge which goes beyond basic product or service knowledge can be captured. Blind tests are a classic example of direct approach. Past research of this type has shown that knowledge of the brand affects consumer perceptions, preferences, and choices for a product (e.g., Allison and Uhl 1964; Jacoby, Olson, and Haddock 1971).

Conjoint or tradeoff analysis can be employed as a direct approach to measuring customer-based brand equity (Green and Srinivasan 1978, 1990; Green and Wind 1975). Rangaswamy, Burke, and Oliva (1990) use conjoint analysis to explore how brand names interact with physical product features to affect the extendability of brand names to new product categories. If conjoint analysis is employed, care must be taken that consumers do not evaluate unrealistic product profiles or scenarios that violate their basic expectations for the product or brand (Park 1991; Srinivasan 1979).

SUMMARY

To summarize, this section has started with the definition of customer-based brand equity. The rest of the section has been dedicated to the literature on the dimensions of customer-based brand equity, how those dimensions generate brand equity and how customer-based brand equity and its dimensions should be measured. After conceptualizing customer-based brand equity, in the next section we will review the literature on advertising.

3. ADVERTISING AS A CONTRIBUTOR OF CUSTOMER-BASED BRAND EQUITY

The impacts of advertising on the success of brands have been investigated by several studies in literature. In some of these studies, the relationship between advertising and perceived quality has been analyzed. According to the results of these studies, Light (1990) found a correlation between advertising spending and perceived quality and Nelson (1974) explained that heavy advertising can improve perceived quality for experience goods, which are difficult to evaluate prior to purchase. Kirmani and Wright (1989) indicated that the perceived expense of a brand's advertising campaign has an impact on consumers' expectations of product quality. In addition to these studies, several researches have been focused on understanding the relationship between advertising and sales. The results of the study of Kim (1990) indicated that market leaders spend 20 percent more of their budgets on advertising than do their nearest competitors. The relationship between advertising and brand loyalty has been another focus of the studies in literature. For example; Johnson (1984) looked at the relationship between advertising spending and brand loyalty and proposed lack of advertising support as one of the major contributing factors for the decline in brand loyalty over time.

Biel (1993) stated that market share alone does not distinguish strong brands from other brands; even these strong brands have high market shares. That is the reference point for Biel's (1993) recommendation that researchers should focus more on the perceptual components of brand equity (especially brand image) and how they relate to consumer preferences. Because brand equity is the added value for brands to distinguish themselves from other brands, it is needed to be the focus of researches to develop successful branding strategies. Another focus of these studies is on the relationship between advertising and brand equity because of the role of advertising in contributing brand equity by creating brand awareness, and strong, favorable, and unique brand associations and eliciting positive judgments and feelings (Keller 1993).

Brand awareness, a dimension of brand equity, is related to brand familiarity (Keller 1993). According to Alba and Hutchinson (1987), brand familiarity is defined as the number of product-related experiences that have been accumulated to the consumer. With this accumulated product-related experiences, greater brand familiarity contributes to the increase of consumer ability to recognize and recall the brand (Keller 1993). Advertising is an important tool to increase brand familiarity by causing the consumer to experience the brand through repeated exposures and as a result create awareness and increase the probability that the brand is included in the consumer's evoked set (Yoo, Donthu and Lee 2000).

When it comes to the influence of advertising on brand image, Keller (1993) stated that favorable, strong, and unique associations can be created by the marketing program in a variety of well-established ways and advertising is one of the means of shaping the associations that consumers hold about the brands. According to Stigler (1961), advertising will influence brand associations by providing information about objective attributes such as price and physical traits. Moreover, Keller (1993) proposed that advertising may be helpful in creating user and usage imagery attributes. Another important influence of advertising is translating attributes into their corresponding benefits for consumers through communication. How the brand identities are integrated into the supporting marketing program such as the position and prominence of the brand identities in a television ad is one of the factors that influence the strength of brand association (Keller 1992). By presenting accumulated product-related information, advertising can make positive evaluations and attitudes readily accessible in memory (Farquhar 1989). This is crucial to the development of brand equity because favorable brand attitudes will guide perceptions and behavior after they are evoked (Herr and Fazio (1992).

Attitudes are important to understand consumer behavior, because as it is mentioned earlier, after positive attitudes are developed, these attitudes will influence consumers' perceptions and behavior. Brand attitudes are not formed exclusively on the basis of beliefs about the product/brand attributes; they also can be formed on the basis of emotions (Aaker, Stayman, and Hagerty 1986; Batra and Ray 1986; Brown and

Stayman 1992; Burke and Edell 1989; Homer 1990; Mackenzie and Lutz 1989; Mackenzie, Lutz, and Belch 1986; Smith 1993). Advertising can shape both of these dimensions by providing information about attributes and by affecting emotions. For example, attitude toward the ad is a significant moderator in the formation of brand attitudes (Aaker, Stayman, and Hagerty 1986; Batra and Ray 1986; Brown and Stayman 1992; Burke and Edell 1989; Homer 1990; Mackenzie and Lutz 1989; Mackenzie, Lutz, and Belch 1986; Smith 1993). Brand attitudes may be affected by consumers' attitudes toward the advertisements themselves. (Gardner 1985). That is the basis of that affective reactions to the advertised brand is influenced by affective reactions to the advertisement (Gardner 1985). These reactions appear to be almost automatic (Zajonc 1980; Zajonc and Markus 1982) that means positive or negative feelings associated with an advertisement may become associated with the advertised brand, often without consumers' conscious awareness (Gardner 1985). According to the results of these studies, attitude toward the ad can be the basis for brand thoughts, perceptions and attitudes in some situations. For instance, presentation quality of an ad can be used to evaluate both the ad and the brand and attitude toward the ad may reflect inferences about the brands' purchasers (Gardner 1958). Being exposed to an advertisement is not only an exposure; it may communicate expectations about the experience of using the advertised brand (Holbrook and Hirschman 1982). As Gardner (1985) explained seeing an ad for a food product may be liked because it reminds the pleasures of eating or cooking the food.

Based on the literature review, it is seen that advertising is a contributor of customer-based brand equity with its influence on the dimensions of customer-based brand equity. This chapter will first discuss the term "advertising" and the types of advertising media with their unique advantages and disadvantages. Then it will review the literature on advertising effectiveness researches.

3.1. DEFINITION OF ADVERTISING

Consumers are exposed to hundreds of commercial messages every day. These messages may appear in different forms such as in the form of billboards, newspaper ads, TV commercials, coupons, sales letters, publicity, event sponsorships, telemarketing calls, or even e-mails. These comprise marketing communication tools that are used to communicate with consumers by the companies and organizations. And advertising is just one of marketing communication tools. Advertising is defined as "the nonpersonal communication of information usually paid for and usually persuasive in nature about products, services or ideas by identified sponsors through the various media" (Arens 2004, p.7).

Shimp (1997, p.225) proposes that "Advertising must be designed to accomplish several goals: (1) to make target market aware of a new brand, (2) to facilitate consumer understanding of a brand's attributes and its benefits compared to competitive brands, (3) to enhance attitudes and influence purchase intentions, (4) to invite product trial, and to encourage repeat purchase behavior". As a marketing communication tool, by satisfying these goals advertising enhances consumers' perceived value of a certain brand, which would result in increase in sales (Solomon 2004).

"Salesmanship in print, driven by a reason why" indicates how advertising was defined at the beginning of the twentieth century (Arens 2004, p.6). But in the process of time the definition of advertising has broadened because as the nature and needs of business have changed, the concept and practice of advertising have changed, too. At first, newspapers and magazines were the only mass media. Later, radio and television occurred and had greater influence. Most recently, a new medium emerged, internet. And the world wanted to benefit from the power of Internet as an advertising medium. Businesses have now been aware of the opportunity to influence audiences with more technologically advanced media as well as with more traditional media (Goodman 1998). Similar with offline advertising, online advertising is an efficient way to deliver messages and is growing.

As the tools to communicate with consumers have increased, several questions such as ''Do the right people see the ad?" or ''Am I allocating the budget to the 'right' media?'' have occurred (Markham, Gatlin-Watts and Bounds 2001). These questions emphasize the importance of media selection that will display your advertisement.

3.2. ADVERTISING MEDIA

In today's world, people are being exposed to lots of news and information which is supported by advertising and media are the means for these messages to be delivered to target audience. With the increase of message delivery options, media selection decisions have become more complex. The biggest part of an advertising campaign budget is the media cost as Kelley and Jugenheimer (2008) estimate that media costs account for 80 to 85 percent of the advertising budget. Obviously, designing media activities with a goal of efficiency is critical.

With this brief introduction to the basics of advertising media, we will review the characteristics of each type of traditional and internet advertising media which make them different from each other.

3.2.1. Traditional Advertising

Traditional advertising media have served advertiser's needs for generations and commanded the bulk of marketing communicators' advertising budgets throughout most of the 20th century (Shimp 2010, p.392).

As new message delivery options occur, advertising industry as a whole continues to evolve and change. And for traditional media, that change is more tangible and dramatic. As a result in recent years, there have been increased efforts to locate new media that are less costly, less cluttered, and potentially more effective than the established media (Shimp 2010, p.394). Some observers have gone so far as to claim that traditional advertising is on its deathbed (Rust and Oliver 1994, 1996).

According to Shimp (2010) the belief that digital media –primarily internet- offers a more cost-effective way to reach target markets and allow making rapid changes in campaigns change advertisers' perception of how to develop campaigns, and the way they are spending their money on media. That means greater portions of advertising budgets are allocated to online media while spending in the traditional media is reduced. Because online advertising provides consumers with virtually full control over the commercial information they choose to receive or avoid, it is claimed to be superior to traditional media. Even internet is regarded as a better communication medium due to its versatility and superiority at targeting customers, it is nothing more than a part of IMC programs, it is not a replacement for traditional media (as cited in Shimp 2010, p.394).

Traditional Advertising Formats

1. Television Advertising
2. Newspaper Advertising
3. Magazine Advertising
4. Radio Advertising
5. Billboard Advertising
6. In-store Advertising

1. Television advertising is generally considered as the most effective mass-market advertising format. Shimp (2010, pp.379-383) presents the limitations and strengths of television advertising. Television possesses the capability of demonstrating a product in use by reaching consumers simultaneously through auditory and visual senses. Television advertisements engage one's sense and attract attention even when one would prefer not to be exposed to an advertisement. Its ability to activate consumers' awareness of ads and enhance their receptiveness to sales messages are other strengths of television as an advertising medium.

As an advertising medium, television suffers from several distinct problems such as rapidly escalating advertising cost, the erosion of television viewing audiences, zapping and zipping of commercials and the clutter.

Infomercial, an alternative to the conventional form of television commercial, is full-length commercial segment that typically lasts 28 to 30 minutes and combines product news and entertainment (Shimp 2010, p,383-384)**.**

2. Based on the review of how Shimp (2010) presents the limitations and strengths of newspaper advertising, because people read newspapers for news, they are in the right mental frame to process advertisements. Mass audience coverage, short lead times, the ability to provide detailed product information are strengths of newspapers as an advertising medium. National advertisers can adjust a copy to match the specific buying preferences and peculiarities of localized markets and advertising copy can be placed in a section that is compatible with the advertised product.

Clutter is a problem in newspapers, as it is in all of the other major media. Due to its mediocre reproduction quality, newspapers are not generally known to enhance a product's perceived quality, elegance, or snob appeal. Buying difficulty, the changing composition of newspaper readers are other limitations of newspapers as an advertising medium.

3. Unlike other media, magazines often are used for reference and kept for weeks around the home (Shimp 2010, p.366). The ability to reach very large audiences, selectivity to provide detailed product information and conveying this information with a sense of authority, and its self-selection and reader-controlled nature constitute the advantages of magazines. In terms of qualitative considerations, magazines as an advertising medium are exceptional with regard to elegance, quality, beauty, prestige, and snob appeal because of the high level of reproduction quality and the surrounding editorial content.

Reader-controlled nature is both a strength and limitation for magazine advertising. Clutters, long closing dates, the ability to provide fewer geographic options and, variability in circulation patterns from market to market are other limitations of magazine advertising (Shimp 2010, p.363-371).

4. Radio advertising is able to transfer images from television advertising campaign that has been aired frequently by using the TV sound or some adaptation of it and considerably cheaper than other mass media and enables advertisers to pick specific formats and stations to be optimally compatible with both the composition of their target audience and their creative message strategies with an extensive variety of radio programming (Shimp 2010, pp.372-373). Inexpensive radio production costs, short scheduling deadlines are other strengths of radio advertising.

Clutter, inability of employing visualization, high degree of audience fractionalization, and difficulty of buying radio time are limitations of radio advertising.

5. Billboards are large structures located in public places which display advertisements to passing pedestrians and motorists. They can be placed in any location with large amounts of viewers such as on main roads with a large amount of passing motor and pedestrian traffic, on mass transit vehicles and in stations, in shopping malls or office buildings, and in stadiums (Wikipedia 2001).

6. In-store advertising is any advertisement placed in a retail store and includes placement of a product in visible locations in a store, such as near checkout counters, eye-catching displays promoting a specific product, and advertisements in such places as shopping carts and in-store video displays (Wikipedia 2001).

3.2.2. Internet Advertising

Many business people thought the internet would reach millions of customers worldwide with ad messages and since 1994 when the first Internet banner ads were sold, advertisers have been quick to develop the medium and reach their audiences (Choi and Rifon 2002).

Internet advertising has been in a constant evolution. In the early days of advertising on the Internet, the only vehicle for delivering advertising messages was a banner (Silk,

Klein, and Berndt 2001). Over time, with the expansion of the number and type of advertisers, increasing sophistication of the Internet audience, greater bandwidth, and the influx of talent seeking to exploit the creative potential of ever-changing digital technology new internet advertising formats have occurred (Silk, Klein, and Berndt 2001). Because of the increasing consumption of online media, marketers are allocating greater portions of their budgets to online media and considering Internet advertising's growth, there is little doubt that the Internet is a powerful and viable alternative to traditional media advertising (Berman, Battino, Shipnuck and Neus 2009).

Individualization and interactivity are key features of the Internet and of advertising in that medium (Mohammed et al. 2004). Individualization refers to the fact that internet user has control over the flow of information. Interactivity, which is intertwined with individualization, allows for users to select the information they perceive as relevant and for brand managers to build relationships with customers via two-way communications. Interactive advertising enables the user (who no longer is a "receiver" in the traditional, passive model of communications) to be involved in a "conversation" with the commercial message at a subvocal level (Shimp 2010). The user and source of commercial information are engaged in a give-and-take exchange of information-communications intercourse rather than mere transmission and reception (Shimp 2010).

The internet is undeniably a more interactive advertising medium than most. Nonetheless, it is noteworthy that the internet as a medium for advertising is not homogeneous; rather, there is a variety of different forms online advertising.

Internet Advertising Formats

1. Web Sites

2. Display or Banner Ads

3. Rich Media Formats
   - Pop-Ups
   - Interstitials
   - Superstitials

- Video Ads

4. Blogs, Podcasts, and Social Networks
   - Blogs
   - Podcasts
   - Social Networks

5. E-mail
   - Opt-in versus Spam
   - E-zines
   - Wireless E-mail Advertising
   - Mobile Phone Advertising

6. Search Engine Advertising
   - Keyword-Matching Advertising
   - Content-Targeted Advertising

7. Advertising via Behavioral Targeting

8. 3D Product Visualization

1. Web sites can be considered as the centerpiece of companies' online advertising efforts, because other online advertising formats serve to drive traffic to the Web site (Shimp 2010, p.397). Users seek out Web sites in a goal-oriented fashion, whereas other online formats typically are "stumbled upon accidentally" (Rodgers and Thorson, 2000).

2. As Shimp (2010, p.398) explained, banner ads or displays, somewhat analogous to print ads placed in magazine and newspapers, are static advertisements and the most popular advertising formats in the Internet's short advertising.

3. Based on Shimp's (2010, p.399-400) explanations, rich media are more eye-catching and memorable than are standard banner ads. However, in their effort to gain attention, rich media advertising formats also greatly annoy Internet users. *Pop-ups* appear in a separate window while a selected Web page is loading and remain until they are manually closed. *Interstitials*, run while the user waits for a page to download, and there

is not an "exit" option to stop or delete. *Superstitials* are short, animated ads that play over or on top of a Web page. *Online video ads* are audiovisual ads that range in length from 15 seconds to several minutes.

4. As as advertising medium, marketers can develop their own *blogs* or display advertisements on blogs that are appropriate for the advertiser's brand. *Podcasting* is an audio version of blogging and a form of advertising media (Shimp 2010, p.402). Moreover, social networking cites are used as advertising media to communicate with consumers.

5. Marketing communicators have turned to e-mail as a viable advertising medium for delivering advertising messages and providing sales incentives to mass audiences or to smaller targeted groups. However, this form of online communications has been spoiled by "spamming". The practice of sending unsolicited e-mail messages is referred to as *spam. Opt-in e-mailing* is the practice of marketers asking for and receiving consumers' permission to send them messages on particular topics. E-*zines*, or sponsored e-mail, is the distribution of free magazine-like publications. Advertisers would like to reach businesspeople and consumers on their *wireless* devices just as much as they covet contacting them when they are electronically wired into the Internet. *Mobile phones* offer a potentially attractive advertising medium as well as a method for distributing promotional offers (Shimp 2010, p.403-409).

6. Search engine advertising, the fastest growing form of Internet advertising, attempts to place messages in front of people precisely when their natural search efforts indicate they apparently are interested in buying a particular good or service. As a result, users are less likely to consider it intrusive. One form of search engine advertising is *keyword search*. Keywords are specific words and short phrases that describe the nature, attributes, and benefits of a marketer's offering. The other form of search engine advertising involves placing ads on *content-oriented* Web sites that provide appropriate contexts in which to advertise a particular type of product (Shimp 2010, p.409-412).

7. The essence of online behavioral targeting is directing online advertisements to consumers who most likely are interested in making a purchase decision for particular product or service (Shimp 2010, p.413).

8. Different from many banner ads which enable users to interact with a Web site, 3-D visualization lets consumers interact with simulated products on the Web (Schumann and Thorson 2007, p.215).

Table 3.1 : Profiles of Major Media Types

	Strengths	**Limitations**
Newspaper Advertising	1. Audience in appropriate mental frame to process messages 2. Mass audience coverage 3. Flexibility 4. Ability to use detailed copy 5. Timeliness	1. Clutter 2. Not a highly selective medium 3. Higher rates for occasional advertisers 4. Mediocre reproduction quality. 5. Complicated Buying for national advertisers 6. Changing composition of newspaper readers
Magazine Advertising	1. Some magazines reach large audiences 2. Selectivity 3. Long life 4. High reproduction quality 5. Ability to present detailed information 6. Ability to convey information authoritatively 7. High involvement potential	1. Not intrusive 2. Long lead times 3. Clutter 4. Somewhat limited geographic options 5. Variability of circulation patterns by market.
Radio Advertising	1. Ability to reach segmented audiences 2. Intimacy 3. Economy 4. Short lead times 5. Transfer of imagery from TV 6. Use of local personalities	1. Clutter 2. No visuals 3. Audience fractionalization 4. Buying difficulties
Television Advertising	1. Demonstration ability 2. Intrusion value 3. Ability to generate excitement 4. One-on-one reach 5. Ability to use humor 6. Effective with sales force and	1. Rapidly expanding cost 2. Erosion of viewing audiences 3. Audience fractionalization 4. Zipping and zapping 5. Clutter

	trade 7. Ability to achieve impact	
Outdoor Advertising	1. Flexibility 2. High repeat exposure 3. Low cost 4. Low message competition 5. Good positional selectivity	1. Little audience selectivity 2. Creative limitations
Internet Advertising	1. High selectivity 2. Low cost 3. Immediacy 4. interactive capabilities	1. Small 2. Demographically skewed 3. Audience 4. Relatively low impact audience controls exposure

Source: Shimp, T., 2010. Integrated Marketing Communication in Advertising and Promotion. International Edition, pp.358-440

Table 3.2 : Comparison of Internet Advertising and Traditional Advertising

Internet Advertising	**Traditional Advertising**
Internet advertising enables the user to control the amount or rate of information. The user and source of commercial information are engaged in a give-and-take exchange of information (Shimp 2010, p.395).	Traditional media engage the consumer in a relatively passive fashion. The consumer has limited control over the amount or rate of information received. Action involves a flow in one direction (from advertiser to consumer) (Shimp 2010, p.394).
The internet allows for communicating to consumers substantially more content-rich product information (Coalition for Networked Information 1994; Cronin 1994; Hoffman, Novak, and Chatterjee 1995; Serafin and Ralston, 1995).	The broadcast nature of television, radio, billboard, and print constrain a traditional advertisement to one short, memorable message given the space limitations (Cronin 1994).
Maintaining an online ad is less costly	Maintaining traditional ads are more

than maintaining traditional ads and lacks the delays of other media (Hoffman, Novak and Chatterjee 1995; Sussman & Pollack, 1995).	costly.
Online information can be quickly and easily changed and updated (Cronin 1994; Jennings 1996).	Traditional media do not allow making rapid changes.
Internet advertising offers the possibility of immediate feedback with customer surveys and online orders.	Traditional media are not able to get immediate feedback from consumers.
The internet is goal driven and on a mission to obtain information. Banner ads, pop-ups, and unsolicited e-mail messages simply represent an interruption, an obstacle to the user's primary mission. The user controls the exposure and unsolicited advertisements are actively avoided. Thus those advertisements can have little possible effect (Lefton 2001, p.75-78).	Traditional media are not goal driven as much as Internet and do not permit the consumer to control the exposure. For example, the TV viewer is casually watching TV programs and advertisements in a relaxed mood (Shimp 2010, p.396).
The internet has the capacity to reach global audiences at a rapid rate. However, the charge for Internet advertising compared with other traditional means of advertising is rather low in most countries. The proportion of Internet advertising in overall advertising budgets for most advertisers is still insignificant and it	Traditional media are not able to reach global audiences at a rapid rate. But in most countries advertisers allocate their budget mostly on traditional media because it provides mass market coverage.

reaches small demographically skewed audiences (Ling, Lawler, McBain and Moscardini 1999, p.132).	
Although the Internet is gaining a major role as a worldwide advertising medium, it is not expected to replace traditional media. It is expected to compliment them. Of course, at times and in some markets, Web sites can be valuable in attracting initial consumer interest, but its unique power is the ability to provide infinite layers of detail about a product or service interactively at the request of the user (Thomas 1997).	Traditional advertising can serve as a triggering mechanism to lead people to portals and sites. That is why Internet advertising will not replace traditional and it is still dominated by the traditional mainstream advertising media.

Each medium has different characteristics with different strengths and limitations. There are differences among each type of internet and traditional advertising media (See Table 3.1 and 3.2). As Percy and Elliot (2005, p.163-176) expressed, when choosing the media to deliver advertising message, those characteristics must be considered because the strategic use of media must conform to the processing requirements of the communication strategy. In media selection, an attempt must be made to accommodate all communication objectives. The media selected must be consistent with what is required to process the message successfully, and this will differ depending upon the brand awareness and brand attitude strategy needed for the brand.

3.3. CHOOSING THE MEDIA TO DELIVER ADVERTISING MESSAGE

After developing a communication strategy, a media strategy which based on communication objectives must be set. In order to ensure that the media selected to deliver the message are compatible with the communication objective, there are at least

three important points to consider: visual content, the time available to process the message and the frequency potential (Percy and Elliot 2005, p.163-176)

As Percy and Elliot (2005, pp.163-176) explained the points to take into consideration when setting a media strategy, visual content is essential for recognition brand awareness, because you must be able to present the brand as it will be seen at the point of purchase. It is also important for transformational brand attitude strategies because of the need to facilitate emotional authenticity. The time available to process a message is important for high-involvement informational brand attitude strategies because of the need for acceptance of the message. The ability to deliver high frequency is important for recall brand awareness as well as for low-involvement transformational brand attitude strategies. Here there is a need for several exposures to build the link in memory between the category need and brand for recall brand awareness, and to build the emotional association with the brand for low involvement transformational brand attitude strategies. Because brand awareness and brand attitude are always communication objectives, they largely determine media selection.

As Percy and Elliot (2005, pp.163-176) proposed, when brand recognition is the communication objective, there will be a need for good visual content, not much time should be required for processing, and low frequency will do. When the communication objective is brand recall, the biggest concern is with frequency. Good repetition of the linkage of category need and brand name is necessary, and this requires high frequency.

For a brand attitude communication objective that reflects a low-involvement brand decision, there is no strong visual requirement, only a brief processing time is needed, and high frequency is not necessary because the benefits used in adverts following this type of brand attitude strategy must be learned in one or two exposures if it is to be effective. With a brand attitude strategy for a low involvement brand decision and when the underlying motivation is positive, good visual content is critical. Although only a brief processing time is required, a relatively high frequency is necessary because of a generally slower brand attitude development. Because brand attitude strategies that involve high-involvement brand decisions and negative motives require a longer

processing time for the more extensive information content necessary to convince the target audience, media selection emphasis is likely to be on print-oriented media. For these strategies, frequency is not an issue. With high-involvement strategies associated with positive motivations, visual content is critical but there is no need for high frequency. But it might be necessary to provide a certain amount of detailed information. When that is the case, processing time will need to be considered in media selection (Percy and Elliot 2005, p.163-176).

Table 3.3 : Media Ratings on Essential Media Selection Characteristics

	Visual Content	Time to Process Message	Frequency
Television	Yes	Short	High
Radio	No	Short	High
Newspapers	Limitations	Long	High
Magazines	Yes	Long	Limitations
Posters	Yes	Long	Limitations
Internet	Yes	Long	High
Direct Mail	Yes	Long	Low

Source: Adapted from J.R. Rossiter and L. Percy, Advertising Communication and Promotion Management (New York: McGraw-Hill, 1997)

Table 3.4 : Media Selection Options to Satisfy Brand Awareness and Brand Attitude Communication

	Brand Awareness Recognition	Brand Attitude Recall	Low Involvement Informational	Low Involvement Transformational	High Involvement Informational	High Involvement Transformational
Television	Yes	Yes	Yes	Yes	No	Yes
Radio	No	Yes	Yes	No	No	No
Newspapers	Limitations	Yes	Yes	Limitations	Yes	Limitations
Magazines	Yes	Limitations	Yes	Limitations	Yes	Yes
Posters	Yes	Limitations	Yes	Limitations	Limitations	Yes
Internet	Yes	Yes	Yes	Yes	Yes	Yes
Direct Mail	Yes	limitations	Yes	Limitations	Yes	Yes

Source: Adapted from J.R. Rossiter and L. Percy, Advertising Communication and Promotion Management (New York: McGraw-Hill, 1997)

As it is explained recently, visual content, the time available to process the message and the frequency potential are three important points which need to be considered to set a media strategy. The relative importance of those three points is determined by communication objectives and that means different communication objectives will result in different media strategies. Each advertising medium varies in terms of those three dimensions because of their own characteristics with different advantages and limitations. So each advertising medium will have different effects on creating brand awareness or building brand image (See Table 3.3 and Table 3.4).

3.4. MEASURING THE IMPACTS OF ADVERTISING

To explain the effects of advertising, we have to answer the question of how advertising works and influences consumers. There are several hierarchical models detailing the process by which advertising influences consumer behavior and purchase decisions.

As Strong (1925) stated, AIDA was probably the first formal advertising model. Lavidge and Steiner (1961) established the model of "hierarchy of effects" and explained the six steps that consumers progress through to translate advertising into purchase behavior (See Figure 3.1). These steps begin with awareness and knowledge, and then liking and preference come as the second two steps, and lastly conviction and purchase are the final two steps to generate action. Lavidge and Steiner (1961) divided consumer behavior into three dimensions: cognitive dimension, comprising the intellectual, mental or rational states, affective dimension, comprising the emotional or feeling states and lastly conative or motivation dimension, comprising the striving states.
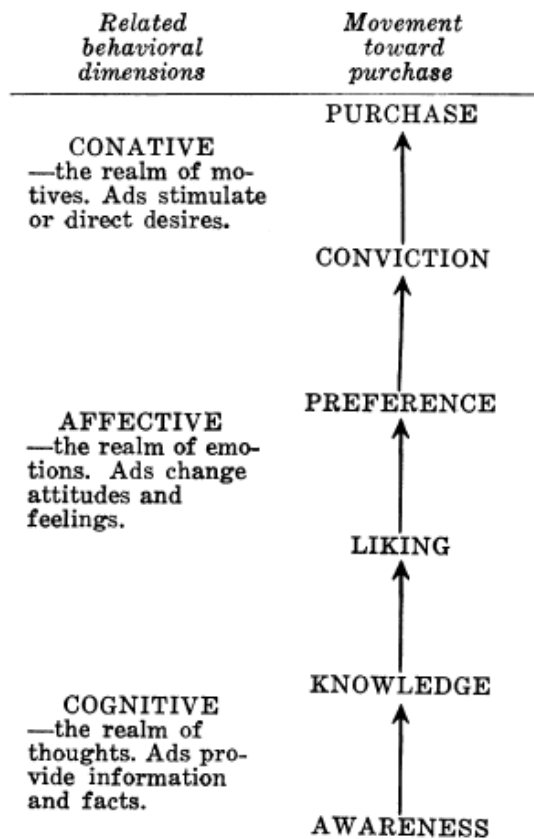
Figure 3.1 : Lavidge and Steiner's Model of "Hierarchy of Effects"
Source : Lavidge, R.J. and Steiner, G.A., 1961, A Model for Predictive
Measurements of Advertising Effectiveness. p.61

In the history of advertising research, several studies were conducted to see how advertising works. The results of some researches did not provide a significant base to support the hierarchical effects of advertising. By reviewing related literature and evaluating the results of the researches, Vakratsas and Ambler (1999) deduced a taxonomy of models as seen in figure 3.2.

Market response models do not consider intermediate advertising effects because they focus on purchase behavior measures, such as sales and market share. The focus of cognitive information model is that consumer decisions are rational. However, pure affect models focus on affective responses and conclude that ad likability highly correlates with brand preference and attitude toward the ad affects brand attitudes only in nonelaborate situations (Biel 1990, Haley and Baldinger 1991, Droge 1989);

advertising need not be informative to be effective, nor need be verbal only; emotional and visual elements enhance preference (Aaker and Norris 1982, Gorn 1982; Healy and Kassarjian 1983; Krugman 1977; Resnik and Stern 1977; Rossiter and Percy 1978, 1983; Sawyer 1981; Stern, Krugman, and Resnik 1981; Stern and Resnik 1991; Weinberger and Spotts 1989; Zajonc 1980; Zajonc and Markus 1982).

As Vakratsas and Ambler (1999) explained, persuasive hierarchy models represent the concept of hierarchy of effects and in this hierarchy, to process through affective stage consumers need to complete cognitive stage. And after the completion of affective stage, consumers act. And by influencing consumers' affects, advertising has a role in generation purchase behavior. When comparing persuasive hierarchy and low involvement hierarchy, the difference occurs in the sequence of effects. In low-involvement hierarchy models, the starting point is product experience and the role of advertising is to reinforces existing habits, frames experience, and to defend the brand's consumer franchise (Ehrenberg 1994; Pechmann and Stewart 1989). According to the integrative models, the sequence of effects is dependent to product category and involvement. Hierarchy-free models discount the persuasive view of advertising and rational decision making; and suggest that advertising is part of a brand totality (King 1975; Lannon 1986, 1994; Lannon and Cooper 1983). In this category where the brands are treated as myths, advertising is treated as myth-making (Lannon 1994; Levi-Strauss 1963; Stem 1995).

Taxonomy of Models of How Advertising Works

Model	Notation	Sequence of Effects
Market response	(–)	No intermediate advertising effects considered
Cognitive information	C	"Think"
Pure affect	A	"Feel"
Persuasive hierarchy	CA	"Think"→ "Feel" → "Do"
Low-involvement hierarchy	CEA	"Think" → "Do" → "Feel"
Integrative	(C)(A)(E)	Hierarchy not fixed, depends on product, involvement
Hierarchy-free	NH	No particular hierarchy of effects is proposed

Figure 3.2 : Taxonomy of Models of How Advertising Works
Source : Vakratsas, D., and Ambler, T., 1999. How Advertising Works: What Do We Really Know? 63, p.37

Based on the review of previously explained models, Vakratsas and Ambler (1999) tried to explain how advertising works, and they stated experience, affect, and cognition are the three key intermediate advertising effects, and all three effects should be included consistently in the studies of advertising effectiveness. According to the results of their study, the significance of the three key intermediate effects depends on the context in which advertising operates. For high-involvement goods cognition is more important than affect, for low-involvement goods affect is more important than cognition, and for mature and familiar products experience is the most important. This suggests that a three-dimensional (C, E, A) space is a more realistic model of advertising effects than a hierarchical model (Vakratsas and Ambler 1999).
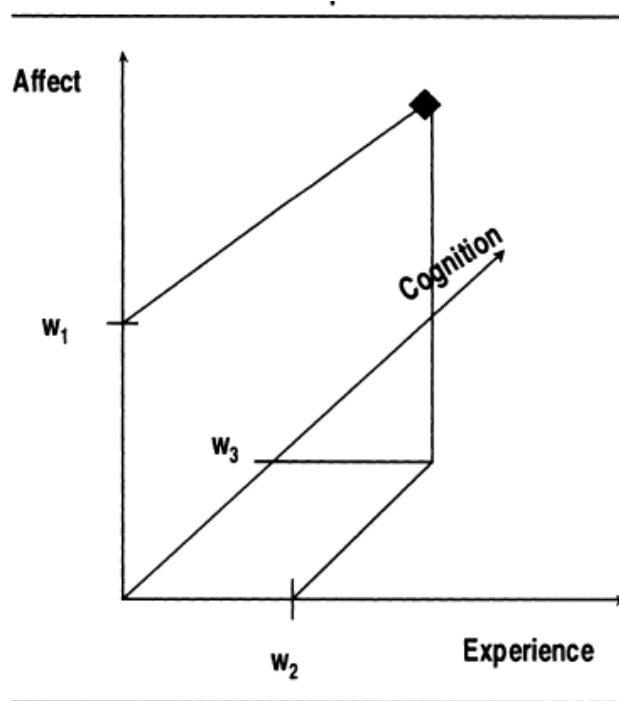
Figure 3.3 : EAC Space
Source : Vakratsas, D., and Ambler, T., 1999. How Advertising Works: What Do We Really Know? 63, p.37

According to the results of the study of Vakratsas and Ambler (1999), while investigating the effectiveness of advertising, Affect, Cognition and Experience effects of advertising should be measured (See Figure 3.3). Another factor that needs to be taken into consideration while measuring the impacts of advertising is the receptiveness

of users' towards an ad, their attitude towards advertising (Lutz 1985; Mackenzie et al. 1986; Mackenzie and Lutz 1989; Muehling 1987; Shimp 1981; Thorson 1981).

3.4.1. Measuring Attitude toward Advertising in General

The study of attitudes to advertising is especially significant because it influences attitudes-toward-the-ad, an important antecedent of brand attitudes (Lutz 1985; Mackenzie et al. 1986; Mackenzie and Lutz 1989; Muehling 1987; Shimp 1981; Thorson 1981) (See Figure 3.4). Findings of the study Haley and Baldinger (1991) also showed commercial liking similar to attitudes-toward-the-ad was among the strongest predictors of sales differences attributable to advertising for the cases studied.
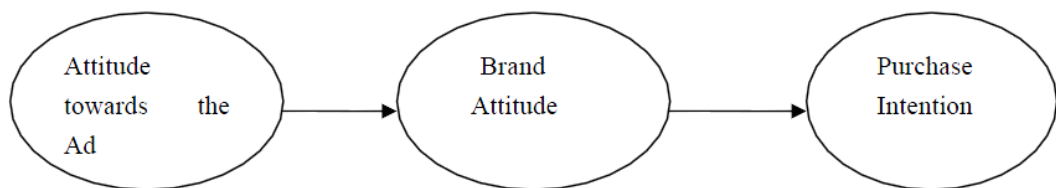
Figure 3.4 : Attitude towards the Ad, Brand Attitude and Purchase Intention Sources: Mitchell and Olson 1981, Mackenzie *et al*. 1986, Brown and Stayman 1992

Greyser (1972) discussed at length how consumers' overall perceptions of advertising impact the effectiveness of advertising. The results of a study of outdoor (billboard) advertising suggest respondents who had a positive attitude toward advertising in general seemed to recall more outdoor advertisements than those who had a negative attitude (Donthu et al. 1993). For print advertisement Metha (2000) found out that one of the factors that influence how much attention will be paid to an advertisement, whether it will be remembered and to what extent the consumers will be persuaded by it, is the attitude toward advertising in general.

It is generally agreed that attitude toward advertising in general can be defined as "a learned predisposition to respond in the consistently favorable or unfavorable manner to

advertising in general" (Lutz 1985). The scope and measurement of general advertising attitudes has widely varied in the literature. Earlier studies (until the early 1960s) had measured general advertising attitudes as an `overall favorability or unfavorability' factor (Mehta and Purvis 1995, p. 190). Many studies have found that attitudes toward advertising are complex and composed of a number of belief dimensions related to social and economic factors (Anderson et al. 1978a, 1978b; Sandage and Leckenby 1980). Bauer and Greyser (1968) suggested that advertising had important economic and social effects and developed a repertoire of questions to measure consumers' attitudes to advertising in general. Muehling (1987) claimed that beliefs must be combined with an evaluative factor in order to represent attitudes (cited in Ramaprasad and Thurwanger 1998, p.5). Pollay and Mittal (1993) proposed a more thorough model which included various belief dimensions.

Media specific advertising attitudes have also been studied and compared. Schlosser, Shavitt and Kanfer (1999) studied attitudes to Internet advertising using a similar questionnaire to that used for general advertising by Shavitt et al. (1998) and they found out advertising in general was more liked than Internet advertising, (46% vs 38%), and less disliked, (25% vs 35%). However, when looking at specific attitudes, Internet advertising attitudes were sometimes more positive, eg 48% vs 38% felt they could trust Internet advertising.

With the introduction of the Internet and Internet advertising several studies have been published that explored the underlying structure of attitudes toward Internet advertising (Ducoffe 1995; Eighmey 1997; Schlosser et al. 1999). Schlosser and Kanfer (1999) argued that the underlying factor structure of consumers' attitudes toward Internet advertising were completely different from those toward traditional advertising formats. According to the results of Yang's (2003) study Internet users' beliefs about Internet advertising indicated that users tend to have the belief factors comparable to those of traditional advertising and many belief items fell into the same or similar factors (Yang 2003). This may suggest a consistency in terms of consumers' perception of advertising, regardless of its formats. Ducoffe (1995) and Eighmey (1997) also argued that the underlying structure of attitudes toward Internet advertising reflects the structure of

attitudes toward adverting in other media. In spite of the information- rich nature of Internet advertising (Ducoffe 1995), it is still considered one type of "advertising" and is likely to be processed as advertising messages in other formats (Yang 2003).

SUMMARY

This section has started with the impacts of advertising on the dimensions of customer based brand equity. We have also defined advertising and how the nature and scope of business have changed. Then we have focused on the differences among traditional and internet advertising media and that have raised the question of whether different types of advertising media can create different effects. In the last part, based on literature review we have presented the factors that should be considered while measuring the effectiveness of advertising such as attitude toward advertising in general, attitude toward the ad and media specific advertising attitudes.

After we have reviewed the literature on customer-based brand equity, advertising and the relationship between them, in the next section we will state the purpose and scope of this study and develop our research hypotheses.

4. THEORETICAL FRAMEWORK

This section starts with the purpose and scope of the study and provides the model of theoretical relations and research hypothesis. Then it continues with the explanation of the presentation of the methodology of this research by explaining the products and stimuli, design, procedure and sample of the research and how the variables are measured.

4.1. PURPOSE AND SCOPE OF THE STUDY

The main purpose of this study is to investigate the relationship between advertising and customer-based brand equity and whether this relationship shows difference as the result of an exposure to internet advertising or traditional advertising.

Print advertising is selected as the form of traditional advertising and its relationship with customer-based brand equity dimensions is compared to the relationship between internet advertising and customer-based brand equity dimensions.

We propose a conceptual framework in which the relationship between advertising and brand equity dimensions, brand awareness, brand image and brand loyalty is seen. According to Keller's (1993) definition of customer-based brand equity, consumer response to marketing includes consumer perceptions, preferences, and behavior arising from marketing mix activity. While investigating brand image and brand awareness dimensions we can find out consumers' perceptions, preferences, attitudes and emotions about the brand. To better understand the differential effect of brand knowledge on consumer response, we will also measure brand loyalty which makes us understand consumer behavior.

On the basis of the literature, we hypothesize directional relationships among advertising efforts and the dimensions of brand equity. According to the results of the study of Vakratsas and Ambler (1999), while investigating the effectiveness of

advertising, affect, cognition and experience effects of advertising should be measured. To understand the effects of advertising we measure attitude toward the ad on cognitive and affective dimensions. Experience effect of advertising is not included because it overlaps with brand loyalty dimension. The factors that influence attitude toward the ad and its relation with customer-based brand equity dimensions are included in the model of theoretical relationships as control variables.

The knowledge about the brand, established by marketing activities, has a significant impact on consumer response to marketing activity. We expect that attitude toward the ad and its influence on brand equity dimensions will be influenced by current brand knowledge. Therefore current brand knowledge is one of the control variables of our research.

The effectiveness of advertising, how much attention will be paid to an advertisement, whether it will be remembered and to what extent the consumers will be persuaded by it, is influenced by the attitude toward advertising in general. (Greyser, 1972; Metha, 2000; Donthu, Cherian, and Bhargava 1993). So in this research we have to take attitude towards advertising in general as another control variable due to its impact on attitude toward the ad.

Besides predisposition towards advertising in general, we need to compare attitudes towards internet advertising and attitudes towards print advertising because researches indicate that attitudes towards internet advertising and attitudes towards general advertising may show difference. In some cases advertising in general may be more liked than Internet advertising, but when looking at specific attitudes, Internet advertising attitudes may be more positive (Schlosser, Shavitt and Kanfer, 1999).

Therefore, together with predisposition towards advertising in general, we take predisposition towards internet advertising and predisposition towards print advertising as control variables to measure the impacts of print and internet advertisements.

Figure 4.1 depicts the relational paths among the constructs. These relationships are discussed next and hypotheses are developed.
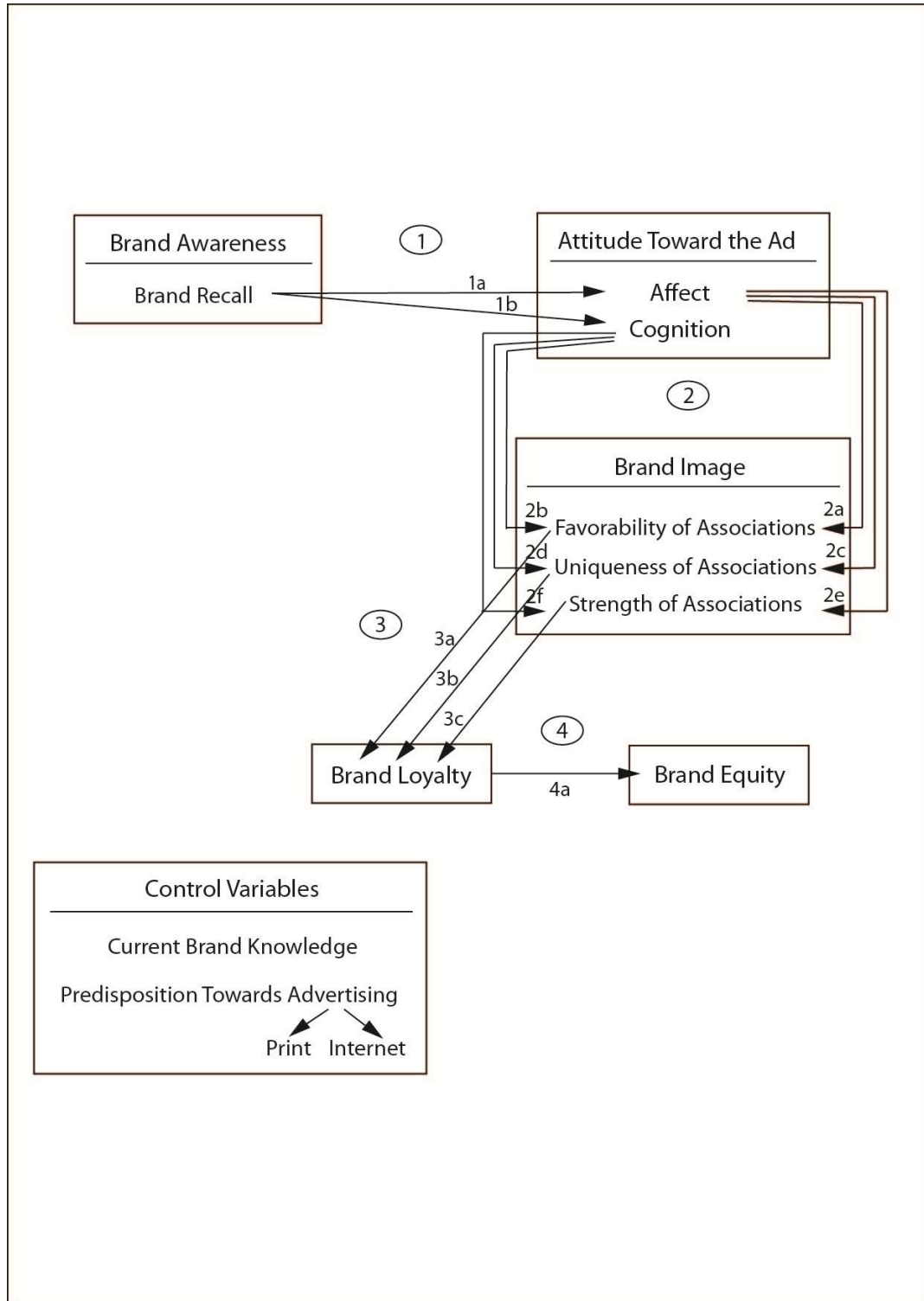
Figure 4.1 : Model of Theoretical Relations

Brand recall is the ability to receive the brand when given the product category (Keller, 2003) and top-of-mind awareness exists when a brand is the first brand that consumers recall (Shimp, 1998). And this ability to receive various brand elements from memory indicates the strength of the brand in memory (Rossiter and Percy 1987). Consistent with associative network model, when a brand node is established in memory, the nature of that node affects how easily different kinds of information can become attached to the brand (Keller, 1993). We hypothesize that the brand nodes which make consumers recall the brand, will have an impact on how consumers evaluate the advertisements of that brand.

Hypothesis 1: Brand recall performance and attitude toward the ad is positively related.

Hypothesis 1a: Affective dimension of attitude toward the ad is positively related to brand recall.

Hypothesis 1b: Cognitive dimension of attitude toward the ad is positively related to brand recall.

Advertising influences brand associations by providing information about objective attributes such as price and physical traits and makes positive evaluations and attitudes readily accessible in memory (Stigler, 1961; Farquhar, 1989). Feelings associated with an advertisement become associated with the advertised brand and brand attitudes are affected by consumers' attitudes toward the advertisements themselves (Gardner, 1985). Based on literature review we hypothesize that the strength, favorability and uniqueness of brand associations will be affected by affective and cognitive dimensions of attitude toward the ad.

Hypothesis 2: Brand image and attitude toward the ad is positively related.

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Hypothesis 2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Hypothesis 2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Oliver (1997) defines brand loyalty as "a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (p. 392). Strongly held, favorably evaluated associations that are unique to the brand and create competitive advantage among other brands, give consumers a reason for buying that particular brand (Aaker 1982; Ries and Trout 1979; Wind 1982; Keller 1993). Brand associations which, when stored in accessible memory, translate into "non-conscious but reliable behavioral predispositions" (Krishnan and Chakravarti 1993, p. 214). Therefore, the presence of strong, favorable and unique associations will result in consumer behavior and loyalty to the brand. Our next hypothesis will be:

Hypothesis 3: Higher levels of strong, favorable and unique associations will imply higher levels of brand loyalty.

Hypothesis 3a: Brand loyalty is positively related to "favorability of associations" dimension of brand image.

Hypothesis 3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.

Hypothesis 3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.

Loyal consumers show more favorable responses to a brand than nonloyal consumers do (Grover and Srinivasan, 1992). Brand loyalty makes consumers purchase a brand routinely and resist switching to another brand and as result to the extent that consumers are loyal to the brand, brand equity will increase (Yoo, Donthu and Lee, 2000).

> **Hypothesis 4:** Higher levels of brand loyalty will imply higher levels of brand equity.
>
> **Hypothesis 4a:** Brand equity is positively related to brand loyalty.

We propose a model of theoretical relations in which the relationship among the constructs will build customer-based brand equity. And the contribution of advertising in building customer-based brand equity is included in this process. We do not propose direct relationship between advertising and all of the dimensions of customer-based brand equity but we hypothesize direct relationship between attitude toward the ad and brand image dimensions. According our model, these brand image dimensions, shaped by advertising, results in generating brand loyalty which we suppose to be positively related to brand equity. We will try to explain the contribution of advertising in customer-based brand equity based on these direct and indirect relationships between advertising and customer-based brand equity dimensions.

In this process, current brand knowledge is supposed to have influences on cognitive and affective dimensions of attitude toward the ad, "favorability, uniqueness and strength of associations" dimensions of brand image, brand loyalty and brand equity. Moreover, predisposition towards advertising is supposed to influence cognitive and affective dimensions of attitude toward the ad. That is why we include current brand knowledge and predisposition towards advertisings as control variables in this research. While analyzing the effects of advertising on customer-based brand equity we will control the role of current brand knowledge and predisposition towards advertising because of their possible effects in this process.

After testing the hypothesized theoretical relationship, we will aim to understand whether a difference occurs in these theoretical relations according to the media by conducting the same analyzes for print and internet ads.

The next section will present the methodology of this research by explaining the products and stimuli, design, procedure and sample of the research and how the variables are measured

4.2 METHODOLOGY

4.2.1. Overview

The above hypotheses were tested through survey research. On the basis of items used in the literature a pool of sample measures were generated. Different survey forms were employed to compare the effects of internet and print advertising on brand equity.

The relationship between advertising (print and internet) and brand equity was measured based on the data collected for a series dependent and control variables.

Dependent variables include the following:
  1. Brand awareness
    - Brand recall
  2. Attitude toward the ad
    - Cognitive/affective dimensions
  3. Brand image
    - Strength/favorability/uniqueness of associations
  4. Brand loyalty
  5. Brand equity

Control variables include the following:
  1. Current brand knowledge
  2. Predisposition towards advertising

- Predisposition towards print/internet advertising

4.2.2. Products and Stimuli

Two familiar GSM operator brands were chosen for the research: Turkcell and Vodafone. This product category was selected for its relevance and availability to the participants. The concern of this study was to investigate the relationship between advertising and brand equity and whether traditional advertising and internet advertising have different effects on brand equity.

As a traditional advertising form, print advertisement and as internet advertising form banner advertisement were selected because they were the most comparable pendants to each other. Advertisements for 3G USB modems of two GSM operators were chosen to use the similar advertisements. Print advertisements were replaced in a magazine page. Banner advertisements were replaced on a web page and shown to the participants through print screen. The advertisements were placed at the same magazine page and web page for two different brands.

4.2.3. Design

The survey research was conducted. To make a comparison between the effects of print advertisement and banner advertisement and two different brands, four different questionnaires were prepared: for print advertisement of Turkcell, banner advertisement of Turkcell, print advertisement of Vodafone and banner advertisement of Vodafone.

4.2.4. Procedure

Participants were randomly given one of four survey forms: Turkcell-internet, Turkcell-print, Vodafone-internet or Vodafone-print. Participants answered the first two sections of survey which included questions about predisposition towards advertising in general, predisposition towards internet advertising, predisposition towards print advertising,

current brand knowledge and brand recall before they saw the advertisements. After the advertisements were shown, participants answered the rest of the questions about attitude toward the ad, brand image, brand loyalty and brand equity by taking into consideration the advertisements. At the end of the survey participants were asked to answer demographic questions such as age, gender, marital status, education, occupation and income.

4.2.5. Measures

The questionnaire measured different elements of brand recall, attitude toward the ad, brand image, brand loyalty, brand equity, current brand knowledge and predispositions towards advertising in general, predispositions towards internet advertising and predispositions towards print advertising (See Table 4.1).

4.2.5.1. Brand Awareness

Brand recall: Respondents were asked to tell the GSM operator brands that come to their mind.

4.2.5.2. Attitude Toward the Ad

Cognitive/affective dimensions: Cognitive and affective dimensions of attitude toward the ad were measured on 7-point scale anchored by not persuasive/persuasive, uninformative/informative, unbelievable/believable, not credible/credible, not clear/clear, the ad was irritating/the ad was not irritating, unappealing/appealing, bad/good, uninteresting/interesting, overall disliking/overall liking, awful/nice (Bezjian, Calder, and Iacobucci, 1998; De Pelsmacker, Decock, and Geuens, 1998; Mitchell and Olson,1981)

4.2.5.3. Brand Image

Strength of associations: We used Aaker's (1997) brand personality scale to measure the strengths of associations. Respondents were asked to evaluate the strength of the brands on sincerity, excitement, competence, sophistication and ruggedness dimensions on a 5-point scale with the endpoints of "very weak" and "very strong".

Favorability of associations: To measure favorability of associations, we designed a 7-point scale anchored by items such as dislike very much/like very much, awful/nice, much worse/much better based on brand attitude scales (MacKenzie and Lutz, 1989; Gardner 1985)

Uniqueness of associations: Uniqueness of associations was measured on a 7-point scale by the items ordinary/unique and very similar/very different.

4.2.5.4. Brand Loyalty

Respondents were asked to tell GSM operator brand they were using at that time and whether they had ever used the other brands.

We measured brand loyalty with 5 items to capture to what extent the advertisements, shown during the survey, have impacts on overall commitment of being loyal to Turkcell or Vodafone. Brand loyalty was measured on a 5-point scale (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree) by 5 items such as "After seeing the advertisement, I might think of using this operator", "After seeing the advertisement, I prefer this operator", "I consider myself to be loyal to the operator that I'm using now" based on Beatty and Kahle's (1988) and Yoo, Donthu and Lee's (2000) works.

4.2.5.5. Brand Equity

Brand equity was measured with Yoo, Donthu and Lee's (2000) customer-based overall brand equity scale. The respondents were asked to express their intention to select brands using items such as "It makes sense to buy Turkcell/Vodafone instead of any other brand", "Even if another brand has same features as Turkcell/Vodafone I would prefer to buy Turkcell/Vodafone", "If another brand is not different from Turkcell/Vodafone in any way, it seems smarter to purchase Turkcell/Vodafone." A 5-point scale with the end points of "strongly agree" and "strongly disagree" was used.

4.2.5.6. Current Brand Knowledge

We developed 10 items (e.g. "I can recognize Turkcell among other competing brands", "I know Turkcell very well", "Some characteristics of Turkcell come to my mind quickly") to measure current brand knowledge (Rossiter and Percy, 1987; Srull 1984; Yoo, Donthu and Lee, 2000). These items were measured on a 5-point scale with the end points of "strongly agree" and "strongly disagree"

4.2.5.7. Predisposition towards Advertising

Predisposition towards advertising was measured based on the studies about attitudes toward advertising literature (Pollay and Mittal 1993; Ramaprasad and Thurwanger 1998; Yang 2000). Respondents were asked to indicate how strongly they agree or disagree with the statements about advertising (e.g. "Overall, I consider advertising a good thing"," "Overall, I like advertising", "In general, advertisements do not provide a true picture of the product advertised" on a 5-point scale.

Predisposition towards internet/print advertising: The items that are used to measure attitude towards advertising in general were adopted for print and internet advertising. Predisposition towards internet and print advertising were measured on a 5-point scale with the end points of "strongly disagree" and "strongly agree" by the items such as

"Most internet/print advertising is misleading", "Internet/print advertising is a valuable source of information about products/services", I like internet/print advertisements".

Table 4.1 :   Survey Questions

VARIABLE	QUESTIONS	SCALE	REFERENCE
Brand Recall	When you think of GSM operators, which brands come to mind?	Open-ended	
Attitude Toward the Ad Cognitive	Not persuasive/Persuasive	7-point scale	(Bezjian, Calder, and Iacobucci, 1998; De Pelsmacker, Decock, and Geuens, 1998; Mitchell and Olson,1981)
	Uninformative/Informative		
	Unbelievable/Believable		
	Not credible/Credible		
	Not clear/Clear		
Attitude Toward the Ad Affective	The ad was irritating/The ad was not irritating	7-point scale	(Bezjian, Calder, and Iacobucci, 1998; De Pelsmacker, Decock, and Geuens, 1998; Mitchell and Olson,1981)
	Unappealing/Appealing		
	Bad /Good		
	Uninteresting/Interesting		
	Overall disliking/Overall liking		
	Awful/Nice		
Favorability of Associations	Dislike very much /like very much	7-point scale	(MacKenzie and Lutz, 1989; Gardner 1985)
	Awful /nice		
	Much Worse /Much better		
Uniqueness of ssociations	Ordinary / unique	7-point scale	-
	Very similar /very different		
Strength of Associations	Sincerity (Down-to-earth / Honest / Wholesome / Cheerful)	5-point scale	(Aaker, 1997)
	Excitement (Daring / Spirited / Imaginative / Up-to-date)		
	Competence (Reliable / Intelligent / Successful)		
	Sophistication (Upper class / Charming)		
	Ruggedness (Outdoorsy / Tough)		
Brand Loyalty	After seeing the advertisement, i might think of using this operator.	5-point scale	(Beatty & Kahle, 1988; Yoo, Donthu & Lee, 2000)
	After seeing the advertisement, i prefer this operator.		
	After seeing the advertisement, i don't think of using another operator instead of this operator.		
	After seeing the advertisement, i don't think of using this operator instead of my current operator.		
	I consider myself to be loyal to the operator that i'm using now.		

Table 4.1 :   Survey Questions (Continues)

VARIABLE	QUESTIONS	SCALE	REFERENCE
Brand Equity	It makes sense to buy Turkcell/Vodafone instead of any other brand.	5-point scale	(Yoo, Donthu & Lee, 2000)
	Even if another brand has same features as TurkcellVodafone, I would prefer to buy Turkcell/Vodafone.		
	If there is another brand as good as Turkcell/Vodafone, I prefer to buy Turkcell/Vodafone.		
	If another brand is not different from Turkcell in any way, it seems smarter to purchase Turkcell/Vodafone.		
Current Brand Knowledge	I know what Turkcell/Vodafone looks like.	5-point scale	(Rossiter and Percy, 1987; Srull 1984; Yoo, Donthu and Lee, 2000)
	I can recognize Turkcell/Vodafone among other competing brands.		
	I know Turkcell/Vodafone very well.		
	Some characteristics of Turkcell/Vodafone come to my mind quickly.		
	I can quickly recall the symbol or logo of Turkcell/Vodafone.		
	I have difficulty in imagining Turkcell/Vodafone in my mind.		
Predisposition Towards Advertising	Overall, I consider advertising a good thing.	5-point scale	(Pollay and Mittal 1993; Ramaprasad & Thurwanger, 1998; Yang 2000).
	Overall, I like advertising.		
	Most advertisements are misleading.		
	Advertisements are valuable source of information about products/services.		
	Advertisements are interesting and attractive.		
	In general, advertisements do not provide a true picture of the product advertised.		
Predisposition Towards Internet Advertising	Most Internet advertising is misleading.	5-point scale	(Pollay and Mittal 1993; Ramaprasad & Thurwanger, 1998; Yang 2000).
	I like internet advertisements.		
	Internet advertising is a valuable source of information about products/services.		
	Internet advertising is interesting and attractive.		
	In general, Internet advertising does not provide a true picture of the product advertised.		
Predisposition Towards Print Advertising	Most print advertising is misleading.	5-point scale	(Pollay and Mittal 1993; Ramaprasad & Thurwanger, 1998; Yang 2000).
	I like print advertisements.		
	Print advertising is a valuable source of information about products/services		
	Print advertising is interesting and attractive.		
	In general, print advertising does not provide a true picture of the product advertised.		

4.2.6. Limitations of the Research

Hypotheses testing was carried out with the help of 208 questionnaires. The limitations of such a sample size should be considered especially when the questionnaires divided into two different groups according to the media of the ad and divided into four different groups according to the media and the brand. For media-based hypotheses testing and for media-and-brand based hypotheses testing, the sample size became smaller. Media based analyses were conducted for two different groups with the help of approximately 100 questionnaires. However, brand and media-based hypotheses testing were conducted for four different groups with the help of approximately 50 questionnaires. Such a sample size (N=50) was not sufficient for generalization and could not be able to give significant base to support or not support the hypotheses.

Although research sample consisted of a wide range of participant profiles, the limitation was that the sample couldn't be able to reflect the general population. Generalizing the results of the study is limited by this lack of correspondence.

In this research, the data collected by conducting survey research and survey questions were designed based on the review of literature. Because the reviewed literature was in English, there was a need to translate the questions and the scales into Turkish. Another limitation of the study is the lack of correspondence of this direct translation.

The present research attempted to investigate the relationship between advertising and customer-based brand equity and how advertising efforts contribute to the dimensions of customer-based brand equity. To understand the influences and contribution of advertising on customer-based brand equity, we needed to control the effects current brand knowledge. That is why we asked participants to answer survey questions according to the ads shown. As a recommendation for future researches, we propose that using fictive brands in an experimental design can provide a better understanding of how advertising efforts contribute to customer-based brand equity by eliminating the effects of current brand knowledge.

5. ANALYSIS AND RESULTS

This section presents demographics of the respondents, factor analysis and reliability tests of ad-related, brand-related and control variables, correlation analyses, regression analyses, chi-square tests, independent t-tests, and one-way anova tests. The analyses were carried out with the help of 208 questionnaires which are valid.

5.1. FINDINGS RELATED DEMOGRAPHICS

Table 5.1 : Gender Distribution

	Frequency	**Percentage (%)**
Male	82	39,4
Female	126	60,6
Total	208	100,0

Table 5.1 shows gender distribution of the research sample (N=208). According to this table, 39 percent of the respondents were male (n=82) and 61 percent were female (n=126).

Table 5.2 : Age Distribution

	Frequency	**Percentage (%)**
18-29	152	73,1
30-39	35	16,8
40-49	15	7,2
50+	6	2,9
Total	208	100,0

According to age distribution of the respondents, shown in table 5.2, 73 percent of the respondents were 18-29 years old (n=152), 17 percent were 30-39 years old (n=35), 7 percent were 40-49 years old (n=15) and 3 percent were over 50 years old (n=6).

Table 5.3 : Marital Status Distribution

	Frequency	Percentage (%)
Single	154	74,0
Married	54	26,0
Total	208	100,0

As shown in table 5.3, majority of respondents, constituted 74 percent, were single (n=154) and 26 percent were married (n=54).

Table 5.4 : Education Level

	Frequency	Percentage (%)
High School	71	34,1
Associate's degree	8	3,8
Bachelor's degree	87	41,8
Master's degree	42	20,2
Total	208	100,0

Table 5.4 shows that 34 percent of the respondents got a high school degree (n=71), 4 percent got an associate's degree (n=8), 42 percent got a bachelor's degree (n=87) and 20 percent got a master's degree (n=42).

Table 5.5 : In Working Condition Distribution

	Frequency	Percentage (%)
No	100	48,1
Yes	108	51,9
Total	208	100,0

As shown in table 5.5, 48 percent of the respondents did not work (n=100) and 52 percent did work (n=108).

Table 5.6 : Income Level Distribution

	Frequency	**Percentage (%)**
Under 1000 TL	122	59,2
1000 TL – under 2000 TL	44	21,4
2000 TL – under 3000 TL	22	10,7
Over 3000 TL	18	8,7
Total	206	100,0

When income level distribution is analyzed, as seen in table 5.6, 59 percent of the respondents had an income level under 1000 TL (Turkish Lira) (n=122). Income level of 21 percent was from 1000 TL to 2000 TL (n=44) and 11 percent had an income level from 2000 TL to 3000 TL (n=22). Lastly, income level of 9 percent was over 3000 TL (n=18).

5.2. STATISTICAL ANALYSIS OF THE DATA

Research data was analyzed through SPSS (Statistical Package for the Social Sciences) 16.0. Descriptive statistics such as frequencies, percentages, means and standard deviations were employed to analyze the data.

To test and evaluate construct validity, exploratory factor analysis is employed on the basis of three groups of variables: brand related dependent variables, ad related dependent variables and control variables.

Factor analysis, multivariate statistical technique, is employed to identify a relatively small number of factors or underlying dimensions that can be used to represent relationships within a large variable set (Stewart 1981, p.51). It serves as a data reduction technique by finding a new set of variables fewer in number than original variables (Stewart 1981, p.51).

While employing factor analysis, Kmo and Bartlett tests, which are the measures of sampling adequacy, are employed. According to the results of the tests, if the KMO

value is more than 0.5, the factor analysis is acceptable (Kaiser, 1988). The bigger the Kmo value is, the better the result is (Kuo, Ho and Hu, 2002). When Bartlett test reveals a p value less than 0,05, the factor analysis is acceptable.

In this research, factor analysis was used to find the underlying factors and reliability tests were conducted for these newly emerged factors. Cronbach's alpha is one of the most popular reliability statistics in use (Cronbach, 1951). It determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability (Santos 1999). If Cronbach's alpha value is greater than 0,60, the scale is reliable.

To determine the interrelation of the scales, Pearson correlation coefficient was used. The aim of the correlation analysis was to understand how dependent variables change with a change in independent variables.

To test the effects of independent variables on dependent variables, linear regression was employed. Regression analysis is used to analyze whether there is a relationship between a dependent variable and an independent variable and it is used to determine the strength of this relationship. Moreover, independent sample t-tests, one-way anova tests and chi-square tests were employed to compare the means to understand how variables are interrelated.

5.2.1. Factor Analysis and Reliability Tests

5.2.1.1. Validity and Reliability Analyses Related to Ad-Related Dependent Variables

According to the results of Kmo and Bartlett's test of sphericity, which indicated that Kmo value was 0,807 and Bartlett measure was less than 0,05, factor analysis was acceptable. At the end of factor analysis, two factors were found with a 68,90% total variance explained (See Table 5.7).

Table 5.7 : Factor Structure of Ad-Related Dependent Variables

Variable	Item	Factor Loading	Variance	Cronbach's Alpha
Attitude toward the ad Affective Dimension	Uninteresting / Interesting	0,877	39,006	0,858
	Awful / Nice	0,867		
	Bad / Good	0,857		
	Unappealing / Appealing	0,834		
	Overall disliking / Overall liking	0,774		
	The ad was irritating / The ad was not irritating	0,627		
Attitude toward the ad Cognitive Dimension	Unbelievable / Believable	0,841	29,898	0,913
	Uninformative / Informative	0,834		
	Not persuasive / Persuasive	0,739		
	Not credible / Credible	0,731		
	Not clear / Clear	0,665		
Total Variance Explained: %68,90				

Affective dimension of ad-related dependent variables contains 6 items. Croanbach's reliability measure was calculated as 0,858 for these six items. At the end of factor analysis, there occurred a single factor with 39,0% total variance. Factor analysis generated a single factor with 29,9% total variance for cognitive dimension of ad-related dependent variables which was constituted by 5 items. For these 5 items, Croanbach's reliability measure was calculated as 0,913.

5.2.1.2. Validity and Reliability Analyses Related to Brand-Related Dependent Variables

"After seeing the advertisement, I don't think of using this operator instead of my current operator." and "I consider myself to be loyal to the operator that I'm using now." were two items that were contained in brand loyalty dimension of brand-related dependent variables. These two items were extracted because of the fact that they did not load on relevant factor and they did reduce reliability level of the study.

Kmo and Bartlett's test of sphericity indicated that KMO was calculated as 0,922 and Bartlett measure was less than 0,05. As a result, factor analysis was found to be acceptable. Factor analysis resulted in 5 factors with 80,48% total variance explained (See Table 5.8).

Table 5.8 : Factor Structure of Brand-Related Dependent Variables

Variable	Item	Factor Loading	Variance	Cronbach's Alpha
Brand Image Strength of Associations	Competence (Reliable / Intelligent / Successful)	0,782	20,937	0,888
	Sophistication (Upper Class / Charming)	0,78		
	Ruggedness (Outdoorsy / Tough)	0,774		
	Excitement (Daring / Spirited / Imaginative / Up-to-date)	0,7		
	Sincerity (Down-to-earth / Honest / Wholesome / Cheerful)	0,667		
Brand Image Favorability of Associations	Dislike Very Much / Like Very Much	0,79	13,737	0,882
	Awful / Nice	0,785		
	Much Worse / Much Better	0,559		
Brand Image Uniqueness of Associations	Very Similar / Very Different	0,769	10,906	0,804
	Ordinary / Unique	0,744		
Brand Loyalty	After seeing the advertisement, I might think of using this operator.	0,821	14,011	0,901
	After seeing the advertisement, I prefer this operator.	0,754		
	After seeing the advertisement, I don't think of using another operator instead of this operator.	0,689		
Brand Equity	Even if another brand has same features as TurkcellVodafone, I would prefer to buy Turkcell/Vodafone.	0,897	20,888	0,925
	If there is another brand as good as Turkcell/Vodafone, I prefer to buy Turkcell/Vodafone.	0,854		
	If another brand is not different from Turkcell in any way, it seems smarter to purchase Turkcell/Vodafone.	0,853		
	It makes sense to buy Turkcell/Vodafone instead of any other brand.	0,646		
Total Variance Explained: %80,48				

When dimensions of brand-related dependent variables were analyzed, 5 items of strength of brand associations loaded on a single factor with 20,9% total variance and Croanbach's reliability measure for these 5 items was 0,888.

Croanbach's reliability measure was 0,882 for 3 items of favorability of brand associations. At the end of factor analysis, a single factor was found for these items and the total variance of the factor was 13,7%.

Uniqueness of brand associations contained 3 items and these items loaded on a single factor with 10,9% total variance. For these 3 items Croanbach's reliability measure was calculated as 0,804.

For 3 items of brand loyalty variable, Croanbach's reliability measure was calculated as 0,901 and these items loaded on a single factor with 14,0% total variance.

The result of factor analysis generated a single factor with 20,9% total variance for 4 items of brand equity variable and Croanbach's reliability measure was calculated as 0,925 for these 4 items.

5.2.1.3. Validity and Reliability Analyses Related to Control Variables

Two items of predisposition towards advertising dimension ("Most advertisements are misleading" and "In general, advertisements do not provide a true picture of the product advertised") and two items of predisposition towards print/internet advertising dimension ("Most Print/Internet advertising is misleading" and "In general, print/internet advertising does not provide a true picture of the product advertised.") were eliminated because they did not load on relevant factors and they did reduce reliability level of the study.

After employing Kmo and Bartlett's test of sphericity, KMO value was found as 0,734 and Bartlett measure was found less than 0,05. The result of factor analysis generated 3

different factors for control variables and total variance explained was 58,34% (See Table 5.9).

Table 5.9 : Factor Structure of Control Variables

Variable	Item	Factor Loading	Variance	Cronbach's Alpha
Current Brand Knowledge	I can recognize Turkcell/Vodafone among other competing brands.	0,760	22,903	0,791
	I know what Turkcell/Vodafone looks like.	0,742		
	I know Turkcell/Vodafone very well.	0,731		
	I can quickly recall the symbol or logo of Turkcell/Vodafone.	0,725		
	I have difficulty in imagining Turkcell/Vodafone in my mind.	0,617		
	Some characteristics of Turkcell/Vodafone come to my mind quickly.	0,617		
Predisposition Towards Advertising	Overall, I consider advertising a good thing.	0,804	18,915	0,760
	Overall, I like advertising.	0,799		
	Advertisements are interesting and attractive.	0,693		
	Advertisements are valuable source of information about products/services.	0,613		
Predisposition Towards Print/Internet Advertising	Print/Internet advertising is a valuable source of information about products/services.	0,819	16,524	0,789
	I like Print/Internet advertisements.	0,800		
	Print/Internet advertising is interesting and attractive.	0,737		
Total Variance Explained: %58,34				

Croanbach's reliability measure was calculated as 0,791 for 6 items that constituted current brand knowledge variable. These items loaded on a single factor with 22,9% total variance.

Predisposition toward advertising contained 4 items and Croanbach's reliability measure of these items was 0,760. A single factor was found for these items and total variance was found as 18,9%.

Croanbach's reliability measure for 3 items of predisposition toward print/internet advertising variable was 0,789 and these items loaded on a single factor with 16,5% total variance.

5.3. HYPOTHESES TESTING

5.3.1. Hypotheses Testing of Theoretical Relationship

5.3.1.1. Effects of Brand Awareness on Attitude toward the Ad

In this section, the effects of brand awareness on attitude toward the ad are analyzed. Hypotheses related to the relationship between brand recall and cognitive and affective dimensions of attitude toward the ad are as below:

Hypothesis 1a: Affective dimension of attitude toward the ad is positively related to brand recall.

Table 5.10 : Brand Recall * Affective Dimension of Attitude toward the Ad Crosstabulation

Count

Brand Recall * Affective Dimension Crosstabulation		Affective Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	41	61	102
	as 2nd brand	42	15	57
	as 3rd brand	28	19	47
Total		111	95	206

Table 5.11 : Chi-Square Test of the Relationship between Brand Recall and Affective Dimension of Attitude toward the Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17,296	2	0,000

0 cells (0%) have expected count less than 5. The minimum expected count is 21,67.

Based on the chi-square test, conducted to analyze whether two variables are dependent or not, there is statistically significant relationship between brand recall and affective dimension of attitude toward the ad (df=2; p=0,000<0,05). These results mean that recalling the brand as the first brand results in more positive attitudes toward the ad on affective dimension. There is significant evidence to infer that affective dimension of attitude toward the ad is positively related to brand recall. *(Hypothesis is supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the ad is positively related to brand recall.

Table 5.12 : Brand Recall * Cognitive Dimension of Attitude toward the Ad Crosstabulation

Count

Brand Recall * Cognitive Dimension Crosstabulation		Cognitive Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	39	63	102
	as 2nd brand	34	23	57
	as 3rd brand	22	25	47
Total		95	111	206

Table 5.13 : Chi-Square Test of the Relationship between Brand Recall and Cognitive Dimension of Attitude toward the Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6,759	2	0,034

0 cells (,0%) have expected count less than 5. The minimum expected count is 21,67.

The chi-square test, conducted to analyze whether two variables are dependent or not, indicates that there is statistically significant relationship between brand recall and cognitive dimension of attitude toward the ad (df=2; p=0,034<0,05). These results mean that recalling the brand as the first brand leads to more positive attitudes toward the ad on cognitive dimension. There is significant base to conclude that cognitive dimension of attitude toward the ad is positively related to brand recall. *(Hypothesis is supported.)*

5.3.1.2. Effects of Attitude toward the Ad on Brand Image

This section analyzes how brand image dimensions are related to attitude toward the ad. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward the ad and "favorability, uniqueness and strength of associations" dimensions of brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Table 5.14 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	1,13	4,93	0,000	107,10	0,000	0,506
	Affective Dimension	0,52	9,58	0,000			
	Cognitive Dimension	0,23	4,11	0,000			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward the ad and favorability of brand associations, is statistically significant (F=107,10; p=0,000<0,05). There is a significant relationship between cognitive dimension of attitude toward the ad and "favorability of associations" dimension of brand image (t=4,11; p=0,000<0,05). One-unit increase in cognitive dimension leads to 0,23-units increase in favorability of associations, while holding affective dimension constant (ß=0,23). The regression model indicates that there is also a significant relationship between affective dimension of attitude toward the ad and "favorability of associations" dimension of brand image (t=9,58; p=0,000<0,05). One-unit increase in affective dimension corresponds to an average increase in favorability of associations of 0,52, while holding cognitive dimension constant (ß=0,52). % 0,506 of the variance in favorability of associations is explained by cognitive and affective dimensions of attitude toward the ad. Based on these results, there is significant evidence to conclude that "favorability of associations" dimension of brand image is positively related to affective and cognitive dimensions of attitude toward the ad. *(Hypothesis 2a and hypothesis 2b are supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Table 5.15: Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image – Uniqueness of Associations	(Constant)	0,80	2,88	0,004	51,89	0,000	0,330
	Affective Dimension	0,46	6,93	0,000			
	Cognitive Dimension	0,18	2,52	0,013			

The regression model, used to analyze the relationship between cognitive and affective dimensions of attitude toward the ad and uniqueness of brand associations, is statistically significant (F=51,89; p=0,000<0,05). There is a significant relationship between cognitive dimension of attitude toward the ad and "uniqueness of associations" dimension of brand image (t=2,52; p=0,013<0,05). One-unit increase in cognitive dimension results in 0,18-units increase in uniqueness of associations, while holding affective dimension constant (ß=0,18). Regression model indicates that there is also a significant relationship between affective dimension of attitude toward the ad and "uniqueness of associations" dimension of brand image (t=6,93; p=0,000<0,05). One-unit increase in affective dimension corresponds to 0,46-units increase in uniqueness of associations, while holding cognitive dimension constant (ß=0,46). % 0,330 of the variance in uniqueness of associations is explained by cognitive and affective dimensions of attitude toward the ad. These results mean that there is significant base to state that "uniqueness of associations" dimension of brand image is positively related to affective and cognitive dimensions of attitude toward the ad. *(Hypothesis 2c and hypothesis 2d are supported.)*

Hypothesis 2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.

Hypothesis 2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.

Table 5.16: Regression Analysis of the Relationship between "Strength of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image – Strength of Assocations	(Constant)	1,45	8,40	0,000	43,96	0,000	0,293
	Affective Dimension	0,24	5,87	0,000			
	Cognitive Dimension	0,13	2,96	0,003			

According to the regression model, employed to estimate how strength of brand associations is related to cognitive and affective dimensions of attitude toward the ad, is statistically significant (F=43,96; p=0,000<0,05). The results of the regression analysis indicate that there is a significant relationship between cognitive dimension of attitude toward the ad and "strength of associations" dimension of brand image (t=2,96; p=0,003<0,05). One-unit increase in cognitive dimension leads to 0,13-units increase in strength of associations, while holding affective dimension constant (ß=0,13). There is also a significant relationship between affective dimension of attitude toward the ad and "strength of associations" dimension of brand image (t=5,87; p=0,000<0,05). With one-unit increase in affective dimension, 0,24-units increase in uniqueness of associations occurs, while holding cognitive dimension constant (ß=0,24). % 0,293 of the variance in strength of associations is explained by cognitive and affective dimensions of attitude toward the ad. These results provide significant base to support the hypotheses related to the relationship between "strength of associations" dimension of brand image and affective and cognitive dimensions of attitude toward the ad. *(Hypothesis 2e and 2f are supported.)*

5.3.1.3. Effects of Brand Image on Brand Loyalty

This section tests the effects of brand image dimensions on brand loyalty. Hypotheses related to the relationship between "strength, favorability and uniqueness of associations" dimension of brand image and brand loyalty are as below:

Hypothesis 3a: Brand loyalty is positively related to "favorability of associations" dimension of brand image.

Hypothesis 3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.

Hypothesis 3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.

Table: 5.17. Regression Analysis of the Relationship between Brand Loyalty and "Favorability, Uniqueness and Strength of Associations" Dimension of Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,255	1,237	0,217	44,02	0,000	0,384
	Brand Image - Strength of Associations	0,407	4,651	0,000			
	Brand Image - Favorability of Associations	0,223	3,525	0,001			
	Brand Image - Uniqueness of Associations	0,037	0,644	0,520			

The regression model of how brand loyalty is related to favorability, strength and uniqueness of brand associations is statistically significant (F=44,02; p=0,000<0,05). The results of the regression analysis indicate that there is statistically significant relationship between "strength of associations" dimension of brand image and brand loyalty (t=4,651; p=0,000<0,05). One-unit increase in strength of associations leads to 0,407-units increase in brand loyalty, while holding favorability and uniqueness of associations constant (ß=0,407). There is also a statistically significant relationship between "favorability of associations" dimension of brand image and brand loyalty. With one-unit increase in favorability of associations, 0,223-units increase in brand loyalty occurs, while holding strength and uniqueness of associations constant (ß=0,223). However, according to the results of the regression analysis, "uniqueness of

associations" dimension of brand image does not statistically influence brand loyalty (t=0,644; p=0,520>0,05). % 0,384 of the variance in brand loyalty is explained by "favorability, strength and uniqueness of associations" dimensions of brand image. (R^2=0,384). Based on these results, there is significant evidence to infer that brand loyalty is positively related to "favorability and strength of associations" dimension of brand image. However, these results do not give significant evidence to support the hypothesis related to the relationship between brand loyalty and "uniqueness of associations" dimension of brand image. *(Hypothesis 3a and hypothesis 3c are supported. Hypothesis 3b is not supported.)*

5.3.1.4. Effects of Brand Loyalty on Brand Equity

The effects of brand loyalty on brand equity are analyzed in this section. Hypothesis related to the relationship between brand loyalty and brand equity is as follows:

Hypothesis 4a: Brand equity is positively related to brand loyalty.

Table 5.18: Regression Analysis of the Relationship between Brand Loyalty and Brand Equity

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	0,865	6,323	0,000	227,83	0,000	0,523
	Brand Loyalty	0,765	15,094	0,000			

The regression model, performed to analyze how brand equity is related to brand loyalty, is statistically significant (F=227,83; p=0,000<0,05). Regression analysis indicates that there is a significant relationship between brand equity and brand loyalty (t=15,094; p=0,000<0,05.). One-unit increase in brand loyalty corresponds to 0,765-units increase in brand equity (ß=0,765). % 0,523 of the variance in brand equity of is explained by brand loyalty. (R^2=0,523). Based on these results there is significant

evidence to support the hypothesis that brand equity is positively related to brand loyalty. *(Hypothesis is supported.)*

5.3.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward the ad, brand image, brand loyalty and brand equity. Moreover, predisposition towards advertising is supposed to effect attitude toward the ad. That is why current brand knowledge and predisposition towards advertising are included as control variables in this research. Following sections include analyses related to the effects of current brand knowledge on attitude toward the ad, brand image, brand loyalty and brand equity and the effects of predisposition towards advertising on attitude toward the ad.

5.3.2.1. Effects of Current Brand Knowledge on Attitude toward the Ad

This section analyzes how current brand knowledge effects attitude toward the ad. Hypotheses related to the relationship between current brand knowledge and affective and cognitive dimensions of attitude toward the ad are as below:

Hypothesis 1a: Affective dimension of attitude toward the ad is positively related to current brand knowledge.

Table 5.19 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Affective Dimension	Low Levels of Current Brand Knowledge	20	3,533	1,456	-1,306	0,193
	High Levels of Current Brand Knowledge	188	3,983	1,466		

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The independent t-test, used to compare affective dimension means of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, indicates that there is no significant difference in group means (t=-1,306; p=0,193>0,05). According to these results of independent t-test, there is no significant base to conclude that in this research affective dimension of attitude toward the ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the ad is positively related to current brand knowledge.

Table 5.20 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward the Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Cognitive Dimension	Low Levels of Current Brand Knowledge	20	3,710	1,446	-1,583	0,115
	High Levels of Current Brand Knowledge	188	4,231	1,394		

Independent t-test is used to analyze whether the means of cognitive dimension change according to the level of current brand knowledge. According to the results, there is no statistically significant difference in the means of cognitive dimension of the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge (t=-1,583; p=0,115>0,05). These results mean that current brand knowledge does not statistically influence cognitive dimension of attitude toward the ad in this research. *(Hypothesis is not supported.)*

5.3.2.2. Effects of Current Brand Knowledge on Brand Image

This section focuses on testing the effects of current brand knowledge on brand image dimensions. Hypotheses related to the relationship between current brand knowledge

and "favorability, uniqueness and strength of associations" dimensions of brand image are as following:

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.21: Independent T-Test of How the Means of "Favorability of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Image - Favorability of Associations	Low Current Brand Knowledge	20	3,450	1,136	-2,470	0,014
	High Current Brand Knowledge	188	4,241	1,383		

The results of the independent t-test indicate that "favorability of associations" dimension of brand image change significantly according to current brand knowledge (t=-2,470; p=0,014<0,05). The mean of favorability of associations is higher for the participants with high levels of current brand knowledge than for the participants with low levels of current brand knowledge. These results show that favorability of associations is influenced by current brand knowledge in this research and provide significant base to support the hypothesis related to the effect of current brand knowledge on "favorability of associations" dimension of brand image. *(Hypothesis is supported.)*

Hypothesis 2b: "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.22 : Independent T-Test of How the Means of "Uniqueness of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Image - Uniqueness of Associations	Low Current Brand Knowledge	20	3,150	1,204	-0,677	0,499
	High Current Brand Knowledge	188	3,380	1,470		

The independent t-test, used to analyze whether current brand knowledge statistically influences "uniqueness of associations" dimension of brand image, indicate that differences in the means of uniqueness of associations of the respondents with low levels of current brand knowledge and of those with high levels of current brand knowledge are not statistically significant (t=-0,677; p=0,499>0,05). The results mean that uniqueness of associations is not influenced by current brand knowledge in this research. There is no significant base to support the hypothesis. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.23 : Independent T-Test of How the Means of "Strength of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Image - Strength of Associations	Low Current Brand Knowledge	20	2,730	0,681	-1,097	0,274
	High Current Brand Knowledge	188	2,954	0,886		

The independent t-test, employed to detect whether the means of "strength of associations" dimension of brand image change significantly according to current brand

knowledge, indicates that there is no statistically significant difference in the means of strength of associations of the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge (t=-1,097; p=0,274>0,05). These results mean that strength of associations is not statistically influenced by current brand knowledge in this research. *(Hypothesis is not supported.)*

5.3.2.3. Effects of Current Brand Knowledge on Brand Loyalty

The effects of current brand knowledge on brand loyalty are analyzed in this section. Hypotheses related to the relationship between current brand knowledge and brand loyalty is as following:

Hypothesis 3a: Brand loyalty is positively related to current brand knowledge.

Table 5.24 : Independent T-Test of How the Means of "Brand Loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Loyalty	Low Current Brand Knowledge	20	2,183	0,705	-2,001	0,055
	High Current Brand Knowledge	188	2,534	1,046		

According to the independent t-test, used to analyze whether brand loyalty means change significantly according to the level of current brand knowledge, there is no significant difference in group means (t=-2,001; p=0,055>0,05). The results indicate that brand loyalty is not influenced by current brand knowledge in this research and there is no significant evidence to support the hypothesis related to the relationship between current brand knowledge and brand loyalty. *(Hypothesis is not supported.)*

5.3.2.4. Effects of Current Brand Knowledge on Brand Equity:

The effects of current brand knowledge on brand equity are tested in this section. Hypotheses related to the relationship between current brand knowledge and brand equity is as following:

> **Hypothesis 4a:** Brand equity is positively related to current brand knowledge.

Table 5.25 : Independent T-Test of How the Means of "Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Equity	Low Current Brand Knowledge	20	2,350	0,656	-2,819	**0,008**
	High Current Brand Knowledge	188	2,822	1,105		

The results of the independent t-test, analyzed whether brand equity means change according to the level of current brand knowledge, indicate that there is a significant difference in brand equity means of the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge. (t=-2,819; p=0,008<0,05). The means of brand equity are found to be higher for the respondents with high levels of current brand knowledge than for the respondents with low levels of current brand knowledge. These results mean that brand equity is influenced by current brand knowledge in this research. There is significant base to infer that brand equity is positively influenced by current brand knowledge. *(Hypothesis is supported.)*

5.3.2.5. Effects of Predisposition Towards Advertising on Attitude Toward the ad

This section analyzes the effects of predisposition towards advertising on attitude toward the ad. Hypotheses related to the relationship between predisposition towards advertising and cognitive and affective dimensions of attitude toward the ad are as below:

> **Hypothesis 5a:** Affective dimension of attitude toward the ad is positively related to predisposition towards advertising.

Table 5.26 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Ad Vary According to Predisposition towards Advertising

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Negative Predisposition Towards Advertising	74	3,7050	1,6054	-1,724	0,086
	Positive Predisposition Towards Advertising	134	4,0697	1,3741		

The results of the independent t-test, used to compare affective dimension means of the respondents with negative predisposition towards advertising to those with positive predisposition towards advertising, indicate that there is no significant difference in group means (t=-1,724; p=0,086>0,05). That means there is no significant evidence to conclude that positive predisposition towards advertising results in more positive attitudes toward the ad on affective dimension or negative predisposition towards advertising results in more negative attitudes toward the ad on affective dimension. These results do not provide significant base to support the hypothesis. *(Hypothesis is not supported.)*

> **Hypothesis 5b:** Cognitive dimension of attitude toward the ad is positively related to predisposition towards advertising.

Table 5.27 : Independent T-Test of How Cognitive Dimension of Attitude toward the Ad Vary Across the Respondents with Negative Predisposition towards Advertising and Those with Positive Predisposition towards Advertising

	Group	N	Mean	Std. Deviation	t	p
Cognitive Dimension	Negative Predisposition Towards Advertising	74	3,7946	1,3986	-3,004	0,003
	Positive Predisposition Towards Advertising	134	4,3940	1,3660		

The results of the independent t-test, used to compare cognitive dimension means of the respondents with negative predisposition towards advertising to those with positive predisposition towards advertising, indicate that there is a significant difference in group means (t=-3,004; p=0,003<0,05). Cognitive dimension means of the respondents with positive predisposition towards advertising are greater than the means of the respondents with negative predisposition towards advertising. There is a significant evidence to state that positive predisposition towards advertising leads to more positive attitudes to the ad on affective dimension. *(Hypothesis is supported.)*

Hypothesis: There is a difference in brand loyalty for the respondents who used a different GSM operator before and for those who never used a different GSM operator before.

Table 5.28 : Independent T-Test of the Means of Brand Loyalty for the Respondents Who Used a Different GSM Operator Before and for Those Who Never Used a Different GSM Operator Before

	Have you ever used a different GSM operator?	N	Mean	Std. Deviation	t	p
Brand Loyalty	No	74	2,635	1,240	1,289	0,200
	Yes	134	2,425	0,875		

Independent t-test, employed to analyze the difference in the means of brand loyalty for the respondents who used a different GSM operator before and for those who never used a different GSM operator, indicates that the difference in group means is not statistically significant (t=1,289; p=0,200>0,05). These results mean that there is no significant difference in brand loyalty for the respondents who used a different GSM operator before and for those who never used a different GSM operator before.

5.4. Hypotheses Testing for the Case of Print Ad

5.4.1. Hypotheses Testing for Theoretical Relationship

5.4.1.1. Effects of Brand Awareness on Attitude toward the Print Ad

In this section, the effects of brand awareness on attitude toward the print ad are analyzed. Hypotheses related to the relationship between brand recall and cognitive and affective dimensions of attitude toward the print ad are as follows:

Hypothesis 1a: Affective dimension of attitude toward the print ad is positively related to brand recall.

Table 5.29: Brand Recall * Affective Dimension of Attitude toward the Print Ad Crosstabulation

Count

Brand Recall * Affective Dimension of Attitude toward the Print Ad Crosstabulation		Affective Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	17	29	46
	as 2nd brand	18	6	24
	as 3rd brand	13	15	28
Total		48	50	98

Table 5.30 : The Chi-Square Test of the Relationship between Brand Recall and Affective Dimension of Attitude toward the Print Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9,236	2	0,010

0 cells (,0%) have expected count less than 5. The minimum expected count is 11,76.

The chi-square test, conducted to analyze whether two variables are dependent or not, indicates that there is statistically significant relationship between brand recall and affective dimension of attitude toward the print ad (df=2; p=0,010<0,05). These results indicate that recalling the brand as the first brand statistically results in more positive attitudes toward the print ad on affective dimension. With these results, there is significant evidence to conclude that affective dimension of attitude toward the ad is positively related to brand recall. *(Hypothesis is supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the print ad is positively related to brand recall.

Table 5.31 : Brand Recall * Cognitive Dimension of Attitude toward the Print Ad Crosstabulation

Count

Brand Recall * Cognitive Dimension of Attitude toward the Print Ad Crosstabulation		Cognitive Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	19	27	46
	as 2nd brand	13	11	24
	as 3rd brand	11	17	28
Total		43	55	98

Table 5.32 : The Chi-Square Test of the Relationship between Brand Recall and Cognitive Dimension of Attitude toward the Print Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,395	2	0,498

0 cells (,0%) have expected count less than 5. The minimum expected count is 10,53.

According to the results of the chi-square test, performed to analyze the effects of brand recall on cognitive dimension of attitude toward the print ad, there is no statistically significant relationship between brand recall and cognitive dimension of attitude toward the ad (df=2; p=0,498<0,05). These results means that recalling the brand as the first brand does not statistically results in more positive attitudes toward the print ad on cognitive dimension. Based on this analysis, there is no significant evidence to infer that cognitive dimension of attitude toward the print ad is positively related to brand recall. *(Hypothesis is not supported.)*

5.4.1.2. Effects of Attitude toward the Print Ad on Brand Image

This section focuses on how brand image dimensions are related to attitude toward the print ad. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward the print ad and "strength, favorability and uniqueness of associations" dimension of brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.

Hypothesis 2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.

Table 5.33: Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	1,22	3,54	0,001	45,77	0,000	0,477
	Affective Dimension	0,52	6,63	0,000			
	Cognitive Dimension	0,19	2,24	0,028			

The regression model, used to test how favorability of brand associations is related to cognitive and affective dimensions of attitude toward the print ad, is statistically significant (F=45,77; p=0,000<0,05). There is a significant relationship between cognitive dimension of attitude toward the print ad and "favorability of associations" dimension of brand image (t=2,24; p=0,028<0,05). One-unit increase in cognitive dimension leads to 0,19-units increase in favorability of associations, while holding affective dimension constant (ß=0,19). There is also a significant relationship between affective dimension of attitude toward the print ad and "favorability of associations" dimension of brand image (t=6,63; p=0,000<0,05). One-unit increase in affective dimension corresponds to 0,52-units increase in favorability of associations, while holding cognitive dimension constant (ß=0,52). % 0,477 of the variance in "favorability of associations" dimension of brand image is explained by cognitive and affective dimensions of attitude toward the print ad (R^2=0,477). According to these results, there is significant evidence to support the hypotheses related to the relationship between cognitive and affective dimensions of attitude toward the print ad and "favorability of associations" dimension of brand image. *(Hypothesis 2a and hypothesis 2b are supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.

Hypothesis 2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.

Table 5.34 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image – Uniqueness of Associations -	(Constant)	0,99	2,49	0,014	27,74	0,000	0,353
	Affective Dimension	0,53	5,96	0,000			
	Cognitive Dimension	0,06	0,56	0,580			

The regression model, used to analyze the relationship between cognitive and affective dimensions of attitude toward the print ad and uniqueness of brand associations, is statistically significant (F=27,74; p=0,000<0,05). The results of the regression analysis indicate that there is no significant relationship between cognitive dimension of attitude toward the print ad and "uniqueness of associations" dimension of brand image (t=0,56; p=0,580>0,05). However, according to the regression analysis, there is a statistically significant relationship between affective dimension of attitude toward the print ad and "uniqueness of associations" dimension of brand image (t=5,96; p=0,000<0,05). One-unit increase in affective dimension corresponds to 0,53-units increase in uniqueness of associations, while holding cognitive dimension constant (ß=0,53). % 0,353 of the variance in uniqueness of associations is explained by cognitive and affective dimensions of attitude toward the print ad (R^2=0,353). According to these results there is significant base to conclude that "uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad. *(Hypothesis 2c is supported.)* However, there is no significant evidence to support the hypothesis related to the relationship between "uniqueness of associations" dimension of brand image and cognitive dimension of attitude toward the print ad. *(Hypothesis 2d is not supported.)*

Hypothesis 2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.

Hypothesis 2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.

Table 5.35 : Regression Analysis of the Relationship between "Strength of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude toward the Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image – Strength of Associations	(Constant)	1,09	4,17	0,000	31,88	0,000	0,387
	Affective Dimension	0,30	5,03	0,000			
	Cognitive Dimension	0,17	2,52	0,014			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward the print ad and strength of brand associations, is statistically significant (F=31,88; p=0,000<0,05). There is a significant relationship between cognitive dimension of attitude toward the print ad and "strength of associations" dimension of brand image (t=2,52; p=0,014<0,05). According to the regression analysis, there is also a significant relationship between affective dimension of attitude toward print ad and "strength of associations" dimension of brand image (t=5,03; p=0,000<0,05). With one-unit increase in affective dimension, 0,30-units increase in strength of associations occurs, while holding cognitive dimension constant (ß=0,30). % 0,387 of the variance in "strength of associations" dimension of brand image is explained by cognitive and affective dimensions of attitude toward the print ad (R^2=0,387). According to this analysis, there is significant evidence to state that "strength of associations" dimension of brand image is positively related to affective and cognitive dimensions of attitude toward the print ad. *(Hypothesis 2e and hypothesis 2f are supported.)*

5.4.1.3. Effects of Brand Image on Brand Loyalty

In this section, the effects of brand image dimension on brand loyalty are analyzed. Hypotheses related to the relationship between "strength, favorability and uniqueness of associations" dimension of brand image and brand loyalty are as below:

Hypothesis 3a: Brand loyalty is positively related to "favorability of associations" dimension of brand image.

Hypothesis 3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.

Hypothesis 3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.

Table 5.36 : Regression Analysis of the Relationship between Brand Loyalty and "Favorability, Uniqueness and Strength of Associations" Dimensions of Brand Image

Dependent Variable	Independent Variable	ß	T	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,384	1,394	0,167	20,12	0,000	0,369
	Brand Image - Strength of Associations	0,265	2,165	0,033			
	Brand Image - Favorability of Associations	0,218	2,230	0,028			
	Brand Image - Uniqueness of Associations	0,097	1,157	0,250			

The regression model of how brand loyalty is related to favorability, strength and uniqueness of brand associations is statistically significant (F=20,12; p=0,000<0,05). According to the results of the regression analysis, based on the responses derived from the print ad, there is a significant relationship between "strength of associations" dimension of brand image and brand loyalty (t=2,165; p=0,033<0,05). One-unit

increase in strength of associations leads to 0,265-units increase in brand loyalty, while holding favorability and uniqueness of associations constant (ß=0,265). There is also a significant relationship between "favorability of associations" dimension of brand image and brand loyalty (t=2,230; p=0,028<0,05). With one-unit increase in favorability of associations, 0,218-units increase in brand loyalty occurs, while holding strength and uniqueness of associations constant (ß=0,218). However, regression analysis, performed through the responses toward print ad, indicated that "uniqueness of associations" dimension of brand image does not statistically influence brand loyalty (t=1,157; p=0,250>0,05). % 0,369 of the variance in brand loyalty is explained by "favorability, strength and uniqueness of associations" dimensions of brand image. (R^2=0,369). Based on these results, there is significant base to infer that brand loyalty is positively related to "favorability and strength of associations" dimensions of brand image. *(Hypothesis 3a and 3c are supported.)* However, there is no significant base to support the hypothesis related to the relationship between brand loyalty and "uniqueness of associations" dimension of brand image. *(Hypothesis 3b is not supported.)*

5.4.1.4. Effects of Brand Loyalty on Brand Equity

This section analyzes the effects of brand loyalty on brand equity. Hypothesis related to the relationship between brand loyalty and brand equity is as below:

Hypothesis 4a: Brand equity is positively related to brand loyalty.

Table 5.37 : Regression Analysis of the Relationship between Brand Loyalty and Brand Equity

Dependent Variable	Independent Variable	ß	T	p	F	Model (p)	R^2
Brand Equity	(Constant)	1,059	5,102	0,000	71,42	0,000	0,418
	Brand Loyalty	0,678	8,451	0,000			

The regression model, used to estimate how brand equity is related to brand loyalty, is statistically significant (F=71,42; p=0,000<0,05). Regression analysis, performed through the responses toward the print ad, indicates that there is a significant relationship between brand equity and brand loyalty (t=8,45; p=0,000<0,05.). One-unit increase in brand loyalty corresponds to 0,678-units increase in brand equity (ß=0,678). % 0,418 of the variance in brand equity is explained by brand loyalty (R^2=0,418). These results mean that there is significant base to conclude that brand equity is positively related to brand loyalty. *(Hypothesis is supported.)*

5.4.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward the print ad, brand image, brand loyalty and brand equity. Moreover, predisposition towards print advertising is supposed to effect attitude toward the print ad. That is why current brand knowledge and predisposition towards print advertising are included as control variables in this research. Following sections includes analyzes related to the effects of current brand knowledge on attitude toward the print ad, brand image, brand loyalty and brand equity and the effects of predisposition towards print advertising on attitude toward the print ad. Those analyses are based on the responses derived from the print ad.

5.4.2.1. Effects of Current Brand Knowledge on Attitude toward the Print Ad

This section analyzes how current brand knowledge effects attitude toward the print ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the print ad are as below:

> **Hypothesis 1a:** Affective dimension of attitude toward the print ad is positively related to current brand knowledge.

Table 5.38 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	13	3,4103	1,36187	-1,748	0,084
	High Levels of Current Brand Knowledge	86	4,1628	1,45790		

The results of the independent t-test, used to test the effects of current brand knowledge on affective dimension of attitude toward the print ad, indicates that there is no significant difference in group means (t=-1,748; p=0,084>0,05). These results depict that affective dimension of attitude toward the print ad is not statistically related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the print ad is positively related to current brand knowledge.

Table 5.39 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward the Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	T	p
Cognitive Dimension	Low Levels of Current Brand Knowledge	13	3,8154	1,27922	-1,298	0,197
	High Levels of Current Brand Knowledge	86	4,3186	1,30605		

The results of the independent t-test, performed to analyze how cognitive dimension of attitude toward the print ad is related to the level of current brand knowledge, shows that there is no significant difference in group means (t=-1,298; p=0,197>0,05). These results mean that cognitive dimension of attitude toward the print ad is not statistically related to current brand knowledge. *(Hypothesis is not supported.)*

5.4.2.2. Effects of Current Brand Knowledge on Brand Image

This section focuses on testing the effects of current brand knowledge on brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "favorability, uniqueness and strength of associations" dimensions of brand image are as following:

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.40 : Independent T-Test of How the Means of "Favorability of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	13	3,3846	0,86972	-2,283	0,025
	High Levels of Current Brand Knowledge	86	4,2558	1,33007		

As seen in the results of the independent t-test, conducted to analyze the effects of current brand knowledge on favorability of brand associations, there is significant difference in group means (t=-2,283; p=0,025<0,05). These results mean that higher levels of current brand knowledge result in more favorable brand associations. According to this analysis, there is significant evidence to infer that "favorability of associations" dimension of brand image is positively related to current brand knowledge. *(Hypothesis is supported.)*

Hypothesis 2b: "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.41 : Independent T-Test of How the Means of "Uniqueness of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Uniqueness of Associations	Low Levels of Current Brand Knowledge	13	3,1154	1,02376	-0,807	0,422
	High Levels of Current Brand Knowledge	86	3,4419	1,40046		

The independent t-test, performed to compare the means of uniqueness of brand associations of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, depicts that there is no significant difference in group means (t=--0,807; p=0,422>0,05). According to these results, there is no significant base to infer that "uniqueness of associations" dimension of brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.42 : Independent T-Test of How the Means of "Strength of Associations" Dimensions of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	13	2,8462	0,66410	-0,582	0,562
	High Levels of Current Brand Knowledge	86	3,0047	0,94457		

Based on the results of the independent t-test, used to compare the means of strength of brand associations of the respondents with low levels and current brand knowledge to those with high levels of current brand knowledge, depicts that there is no significant difference in group means (t=--0,582; p=0,562>0,05). According to these results, there

is no significant evidence to support the hypothesis that "strength of associations" dimension of brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.4.2.3. Effects of Current Brand Knowledge on Brand Loyalty

The effects of current brand knowledge on brand loyalty are analyzed in this section. Hypotheses related to the relationship between current brand knowledge and brand loyalty is as following:

Hypothesis 3a. Brand loyalty is positively related to current brand knowledge.

Table 5.43 : Independent T-Test of How the Means of "Brand Loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	13	2,1026	0,69900	-1,246	0,216
	High Levels of Current Brand Knowledge	86	2,4535	0,97674		

The results of the independent t-test, used to analyze the effects of current brand knowledge on brand loyalty, indicate that there is no significant difference in group means (t=--1,246; p=0,216>0,05). These results mean that there is no significant evidence to support the hypothesis that brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.4.2.4. Effects of Current Brand Knowledge on Brand Equity:

The effects of current brand knowledge on brand equity are tested in this section. Hypotheses related to the relationship between current brand knowledge and brand equity is as following:

> **Hypothesis 4a:** Brand equity is positively related to current brand knowledge.

Table 5.44 : Independent T-Test of How the Means of "Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Equity	Low Levels of Current Brand Knowledge	13	2,3462	0,65779	-1,358	0,178
	High Levels of Current Brand Knowledge	86	2,7442	1,02252		

As seen in the results of the independent t-test, used to compare brand equity means of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, there is no significant difference in group means (t=-1,358; p=0,178>0,05). These results do not provide significant evidence to infer that brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.4.2.5. Effects of Predisposition towards Print Advertising on Attitude toward The Print Ad

This section analyzes the effects of predisposition towards print advertising on attitude toward the print ad. Hypotheses related to the relationship between predisposition towards print advertising and cognitive and affective dimensions of attitude toward the print ad are as below:

Hypothesis 2a: Affective dimension of attitude toward the print ad is positively related to predisposition towards print advertising.

Table 5.45 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Print Ad Vary According to Predisposition Towards Advertising

	Group	N	Mean	Std. Deviation	t	P
Affective Dimension	Negative Predisposition Towards Print Advertising	47	3,8156	1,2704	-1,621	0,108
	Positive Predisposition Towards Print Advertising	52	4,2885	1,5939		

The independent t-test, used to compare affective dimension means of the respondents with negative predisposition towards print advertising to those with positive predisposition towards print advertising, indicate that the difference in group means is not significantly different (t=-1,621; p=0,108>0,05). There is no significant evidence to conclude that positive predisposition towards print advertising result in more positive attitudes to the print ad on affective dimension or negative predisposition towards print advertising leads to more negative attitudes to the print ad on affective dimension. *(Hypothesis is not supported.)*

Hypothesis 2b: Cognitive dimension of attitude toward the print ad is positively related to predisposition towards print advertising.

Table 5.46 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward the Print Ad Vary According to Predisposition towards Print Advertising

	Group	N	Mean	Std. Deviation	t	P
Cognitive Dimension	Negative Predisposition Towards Print Advertising	47	4,0468	1,1513	-1,498	0,137
	Positive Predisposition Towards Print Advertising	52	4,4385	1,4192		

The results of the independent t-test, used to compare cognitive dimension means of the respondents with negative predisposition towards print advertising to those with positive predisposition towards print advertising, indicate that there is no significant difference in group means (t=-1,498; p=0,137>0,05). There is no significant evidence to infer that predisposition towards print advertising statistically influences cognitive dimension of attitude toward the print ad. *(Hypothesis is not supported.)*

5.5. Hypothesis Testing for the Case of Internet Ad

5.5.1. Hypothesis Testing of Theoretical Relationship

5.5.1.1. Effects of Brand Awareness on Attitude toward the Internet Ad

In this section, the effects of brand awareness on attitude toward the internet ad are analyzed. Hypotheses related to the relationship between brand recall and cognitive and affective dimensions of attitude toward the internet ad are as below:

Hypothesis 1a: Affective dimension of attitude toward the internet ad is positively related to brand recall.

Table 5.47 : Brand Recall * Affective Dimension of Attitude toward the Internet Ad Crosstabulation

Count

Brand Recall * Affective Dimension of Attitude toward the Internet Ad Crosstabulation		Affective Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	24	32	56
	as 2nd brand	24	9	33
	as 3rd brand	15	4	19
Total		63	45	108

Table: 5.48. The Chi-Square Test of the Relationship between Brand Recall and Affective Dimension of Attitude toward the Internet Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11,653	2	0,003

0 cells (,0%) have expected count less than 5. The minimum expected count is 8,16.

The chi-square test, performed to understand whether two variables are dependent or not, reveals that there is statistically significant relationship between brand recall and affective dimension of attitude toward the internet ad (df=2; p=0,003<0,05). These results emphasize that recalling the brand as the first brand leads to more positive attitudes toward the internet ad on affective dimension. Based on these results, there is significant evidence to state that affective dimension of attitude toward the internet ad is positively related to brand recall. *(Hypothesis is supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the internet ad is positively related to brand recall.

Table 5.49 : Brand Recall * Cognitive Dimension of Attitude toward the Internet Ad Crosstabulation

Count

Brand Recall * Cognitive Dimension of Attitude toward the Internet Ad Crosstabulation		Cognitive Dimension		Total
		Negative Attitudes	Positive Attitudes	
Brand Recall	as 1st brand	20	36	56
	as 2nd brand	21	12	33
	as 3rd brand	11	8	19
Total		52	56	108

Table 5.50 : The Chi-Square Test of the Relationship between Brand Recall and Cognitive Dimension of Attitude toward the Internet Ad

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7,362	2	0,025

According to the results of the chi-square test, conducted to analyze whether two variables are dependent or not, indicates that there is statistically significant relationship between brand recall and cognitive dimension of attitude toward the internet ad (df=2; p=0,025<0,05). These results depict that recalling the brand as the first brand statistically results in more positive attitudes toward the internet ad on cognitive dimension. There is significant base to conclude that cognitive dimension of attitude toward the internet ad is positively related to brand recall. *(Hypothesis is supported.)*

5.5.1.2. Effects of Attitude toward the Internet Ad on Brand Image

How brand image dimensions are related to attitude toward the internet ad is the focus of this section. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward the internet ad and "favorability, strength and uniqueness of associations" dimensions of brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.

Hypothesis 2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.

Table 5.51 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude Toward the Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	1,03	3,38	0,001	62,33	0,000	0,532
	Affective Dimension	0,54	7,05	0,000			
	Cognitive Dimension	0,26	3,43	0,001			

The regression model, used to test the relationship between cognitive and affective dimensions of attitude toward the internet ad and favorability of brand associations, is statistically significant (F=62,33; p=0,000<0,05). According to the regression analysis, there is a significant relationship between cognitive dimension of attitude toward the internet ad and "favorability of associations" dimension of brand image (t=3,43; p=0,001<0,05). One-unit increase in cognitive dimension leads to 0,26-units increase in favorability of associations, while holding affective dimension constant (ß=0,26). There is also a significant relationship between affective dimension of attitude toward the internet ad and "favorability of associations" dimension of brand image (t=7,05; p=0,000<0,05). One-unit increase in affective dimension corresponds to 0,54-units increase in favorability of associations, while holding cognitive dimension constant (ß=0,54). % 0,532 of the variance in favorability of associations is explained by cognitive and affective dimensions of attitude toward the internet ad (R^2=0,532). These results provide significant base to support the hypotheses related to the effects of cognitive and affective dimensions of attitude toward the internet ad on "favorability of associations" dimension of brand image. *(Hypothesis 2a and 2b are supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.

Hypothesis 2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.

Table 5.52 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude Toward the Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Uniqueness of Associations	(Constant)	0,69	1,77	0,080	25,66	0,000	0,313
	Affective Dimension	0,41	4,11	0,000			
	Cognitive Dimension	0,26	2,68	0,009			

The regression model, used to estimate how uniqueness of brand associations are related to cognitive and affective dimensions of attitude toward the internet ad, is statistically significant (F=25,66; p=0,000<0,05). The results of the analysis point out that there is a significant relationship between cognitive dimension of attitude toward the internet ad and "uniqueness of associations" dimension of brand image (t=2,68; p=0,009<0,05). With one-unit increase in cognitive dimension, 0,26-units increase in uniqueness of associations occurs, while holding affective dimension constant (ß=0,26). Moreover, there is also a significant relationship between affective dimension of attitude toward the internet ad and "uniqueness of associations" dimension of brand image (t=4,11; p=0,000<0,05). One-unit increase in affective dimension results in 0,41-units increase in uniqueness of associations, while holding cognitive dimension constant (ß=0,41). % 0,313 of the variance in "uniqueness of associations" dimension of brand image is explained by cognitive and affective dimensions of attitude toward the internet ad (R^2=0,313). Based on this analysis, there is significant evidence to state that "uniqueness of associations" dimension of brand image is positively related to affective and cognitive dimension of brand image. *(Hypothesis 2c and 2d are supported.)*

Hypothesis 2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.

Hypothesis 2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.

Table 5.53 : Regression Analysis of the Relationship between "Strength of Associations" Dimension of Brand Image and Affective/Cognitive Dimensions of Attitude Toward the Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Strength of Associations	(Constant)	1,72	7,50	0,000	14,78	0,000	0,203
	Affective Dimension	0,19	3,26	0,002			
	Cognitive Dimension	0,11	1,88	0,063			

The regression model, used to test the relationship between strength of brand associations and cognitive and affective dimensions of attitude toward the internet ad, is statistically significant (F=14,78; p=0,000<0,05). According to the regression analysis, there is no significant relationship between cognitive dimension of attitude toward the internet ad and "strength of associations" dimension of brand image (t=1,88; p=0,063>0,05). However, the results indicate that there is a statistically significant relationship between affective dimension of attitude toward the internet ad and "strength of associations" dimension of brand image (t=3,26; p=0,002<0,05). One-unit increase in affective dimension leads to 0, 19-units increase in strength of associations, while holding cognitive dimension constant (ß=0, 19). % 0,203 of the variance in strength of brand associations is explained by cognitive and affective dimensions of attitude toward the internet ad (R^2=0,203). Based on this analysis, there is significant evidence to support the hypothesis related to the relationship between "strength of associations" dimension of brand image and affective dimension of attitude toward the internet ad. *(Hypothesis 2e is supported.)* However, these results do not provide significant evidence to infer that "strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad. *(Hypothesis 2f is not supported.)*

5.5.1.3. Effects of Brand Image on Brand Loyalty

This section tests the effects of brand image dimensions on brand loyalty. Hypotheses related to the relationship between "favorability, uniqueness and strength of associations" dimensions of brand image and brand loyalty are as below:

Hypothesis 3a: Brand loyalty is positively related to "favorability of associations" dimension of brand image.

Hypothesis 3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.

Hypothesis 3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.

Table 5.54 : Regression Analysis of the Relationship between Brand Loyalty and "Favorability, Uniqueness and Strength of Associations" Dimensions of Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,034	0,113	0,910	25,93	0,000	0,409
	Brand Image - Strength of Associations	0,576	4,561	0,000			
	Brand Image - Favorability of Associations	0,222	2,668	0,009			
	Brand Image - Uniqueness of Associations	-0,012	-0,158	0,875			

The regression model of how brand loyalty is related to favorability, strength and uniqueness of brand associations is statistically significant (F=25,93; p=0,000<0,05). According to the results of the regression analysis, based on the responses derived from the internet ad, there is a statistically significant relationship between "strength of

associations" dimension of brand image and brand loyalty (t=4,561; p=0,000<0,05). One-unit increase in strength of associations leads to 0,576-units increase in brand loyalty, while holding favorability and uniqueness of associations constant (ß=0,576). There is also a statistically significant relationship between "favorability of associations" dimension of brand image and brand loyalty (t=2,668; p=0,009<0,05). With one-unit increase in favorability of associations, 0,222-units increase in brand loyalty occurs, while holding strength and uniqueness of associations constant (ß=0,222). However, regression analysis, performed through the responses derived from the internet ad, indicates that brand loyalty is not statistically influenced by "uniqueness of associations" dimension of brand image (t=-0,158; p=0,875>0,05). % 0,409 of the variance in brand loyalty is explained by "favorability, strength and uniqueness of associations" dimensions of brand image. (R^2=0,409). Based on these results, there is significant evidence to support the hypothesis related to the relationship between "favorability and strength of associations" dimensions of brand image and brand loyalty. *(Hypothesis 3a and 3c are supported.)* However, these results do not provide significant base to infer that brand loyalty is positively related to "uniqueness of associations" dimension of brand image. *(Hypothesis 3b is not supported.)*

5.5.1.4. Effects of Brand Loyalty on Brand Equity

The effects of brand loyalty on brand equity are analyzed in this section. Hypotheses related to the relationship between brand loyalty and brand equity is as below:

Hypothesis 4a: Brand equity is positively related to brand loyalty.

Table 5.55 : Regression Analysis of the Relationship between Brand Loyalty and Brand Equity

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	0,726	3,960	0,000	157,89	0,000	0,592
	Brand Loyalty	0,823	12,565	0,000			

The regression model, performed to analyze the effects of brand loyalty on brand equity, is statistically significant (F=157,89; p=0,000<0,05). The regression analysis, performed through the responses derived from the internet ad, indicates that there is a statistically significant relationship between brand equity and brand loyalty (t=12,565; p=0,000<0,05.). One-unit increase in brand loyalty leads to 0,823-units increase in brand equity (ß=0,823). % 0,592 of the variance in brand equity is explained by brand loyalty (R^2=0,592). According to these results, there is significant evidence to support the hypothesis related to the relationship between brand loyalty and brand equity. *(Hypothesis is supported).*

5.5.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward the internet ad, brand image, brand loyalty and brand equity. Moreover, predisposition towards internet advertising is supposed to effect attitude toward the internet ad. That is why current brand knowledge and predisposition towards internet advertising are included as control variables in this research. Following sections include analyzes related to the effects of current brand knowledge on attitude toward the internet ad, brand image, brand loyalty and brand equity and the effects of predisposition towards internet advertising on attitude toward the internet ad. Those analyzes are based on the responses derived from the internet ad.

5.5.2.1. Effects of Current Brand Knowledge on Attitude toward the Internet Ad

This section analyzes how current brand knowledge effects attitude toward the internet ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the internet ad are as below:

> **Hypothesis 1a:** Affective dimension of attitude toward the internet ad is positively related to current brand knowledge.

Table 5.56 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	7	3,7619	1,70472	-0,121	0,904
	High Levels of Current Brand Knowledge	102	3,8317	1,46212		

Based on the results of the independent t-test, used to compare the mean of affective dimension of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, there is no significant difference in group means (t=--0,121; p=0,904>0,05). These results do not provide significant evidence to infer that affective dimension of attitude toward the internet ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward the internet ad is positively related to current brand knowledge.

Table 5.57 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward the Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Cognitive Dimension	Low Levels of Current Brand Knowledge	7	3,5143	1,81055	-1,105	0,272
	High Levels of Current Brand Knowledge	102	4,1569	1,46663		

Independent t-test, used to compare the mean of cognitive dimension of attitude toward the internet ad of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, there is no significant difference in group means (t=-1,105; p=0,272>0,05). According to these results, there is no significant base

to support the hypothesis that cognitive dimension of attitude toward the internet ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.5.2.2. Effects of Current Brand Knowledge on Brand Image

This section focuses on testing the effects of current brand knowledge on brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "favorability, uniqueness and strength of associations" dimensions of brand image are as following:

> **Hypothesis 2a:** "Favorability of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.58 : Independent T-Test of How the Means of "Favorability of Associations" Dimension of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	7	3,5714	1,5953	-1,167	0,246
	High Levels of Current Brand Knowledge	102	4,2288	1,43198		

The results of the independent t-test, used to test the effects of current brand knowledge on favorability of brand associations indicate that differences in group means are not statistically significant (t=-1,167; p=0,246>0,05). These results mean that there is no significant base to conclude that "favorability of associations" dimension of brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

> **Hypothesis 2b:** "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge.

Table: 5.59. Independent T-Test of How the Means of "Uniqueness of Associations" Dimension of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Uniqueness of Associations	Low Levels of Current Brand Knowledge	7	3,2143	1,57737	-0,190	0,849
	High Levels of Current Brand Knowledge	102	3,3284	1,53102		

The independent t-test, conducted to analyze how uniqueness of brand associations is related to current brand knowledge, indicates that differences in group means are not statistically significant (t=-0,190; p=0,849>0,05). According to these results there is no significant evidence to support the hypothesis that "uniqueness of associations" dimension of brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge.

Table 5.60 : Independent T-Test of How the Means of "Strength of Associations" Dimension of Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	7	2,5143	0,71047	-1,226	0,223
	High Levels of Current Brand Knowledge	102	2,9118	0,8361		

According to the results of the independent t-test, performed to analyze the relationship between strength of brand associations and current brand knowledge, there is no significant difference in group means (t=-1,226; p=0,223>0,05). These results depict that there is no significant base to infer that "strength of associations" dimension of

brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.5.2.3. Effects of Current Brand Knowledge on Brand Loyalty

The effects of current brand knowledge on brand loyalty are analyzed in this section. Hypothesis related to the relationship between current brand knowledge and brand loyalty is as following:

Hypothesis 3a. Brand loyalty is positively related to current brand knowledge.

Table 5.61 : Independent T-Test of How the Means of "Brand Loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	7	2,3333	0,74536	-0,633	0,528
	High Levels of Current Brand Knowledge	102	2,6013	1,10109		

As seen in the results of the independent t-test, conducted test the effects of current brand knowledge on brand loyalty, there is no significant difference in group means (t=-0,633; p=0,528>0,05). These results mean that there is no significant base to conclude that brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.5.2.4. Effects of Current Brand Knowledge on Brand Equity:

The effects of current brand knowledge on brand equity are tested in this section. Hypotheses related to the relationship between current brand knowledge and brand equity is as following:

Hypothesis 4a: Brand equity is positively related to current brand knowledge.

Table 5.62 : Independent T-Test of How the Means of "Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Equity	Low Levels of Current Brand Knowledge	7	2,3571	0,70500	-1,179	0,241
	High Levels of Current Brand Knowledge	102	2,8873	1,17188		

The independent t-test, used to test how the means of brand equity vary across the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge, differences in group means are not statistically significant (t=-1,179; p=0,241>0,05). According to these results there is no significant evidence to state that brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.5.2.5. Effects of Predisposition Towards Internet Advertising on Attitude Toward The Internet Ad

This section analyzes the effects of predisposition towards internet advertising on attitude toward the internet ad. Hypotheses related to the relationship between predisposition towards internet advertising and cognitive and affective dimensions of attitude toward the internet ad are as below:

Hypothesis 5a: Affective dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising.

Table 5.63 : Independent T-Test of How the Means of Affective Dimension of Attitude toward the Internet Ad Vary According to Predisposition Towards Internet Advertising

	Group	N	Mean	Std. Deviation	t	P
Affective Dimension	Negative Predisposition Towards Internet Advertising	78	3,6453	1,5499	-2,081	0,040
	Positive Predisposition Towards Internet Advertising	31	4,2849	1,1452		

The results of the independent t-test, used to compare affective dimension means of the respondents with negative predisposition towards internet advertising to those with positive predisposition towards internet advertising, indicate that there is a significant difference in group means (t=-2,081; p=0,040<0,05). Affective dimension means of the respondents with positive predisposition towards internet advertising is greater than the means of the respondents with negative predisposition towards internet advertising. There is significant evidence to infer that positive predisposition towards internet advertising leads to more positive attitudes toward the internet ad on affective dimension and negative predisposition towards internet advertising corresponds to more negative attitudes toward the internet ad on affective dimension. *(Hypothesis is supported.)*

Hypothesis 5b: Cognitive dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising.

Table 5.64 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward the Internet Ad Vary According to Predisposition Towards Internet Advertising

	Group	N	Mean	Std. Deviation	t	P
Cognitive Dimension	Negative Predisposition Towards Internet Advertising	78	4,0077	1,5308	-1,202	0,232
	Positive Predisposition Towards Internet Advertising	31	4,3871	1,3662		

According to the independent t-test, used to find out whether the means of cognitive dimension is different for the respondents with negative predisposition towards internet advertising from those with positive predisposition towards internet advertising, difference in group means is not significant (t=-1,202; p=0,232>0,05). That means cognitive dimension of attitude toward the internet ad is not statistically influenced by predisposition towards internet advertising. *(Hypothesis is not supported.)*

Hypothesis: There is a difference in predisposition towards print advertising and predisposition towards internet advertising.

Table 5.65 : Independent T-Test of How the Means of Predisposition towards Print Advertising and Predisposition towards Internet Advertising Are Different

	Group	N	Mean	Std. Deviation	t	p
Predisposition towards Print/Internet Advertising	Print	99	3,411	0,811	4,158	**0,000**
	Internet	109	2,930	0,854		

As seen in the results of the independent t-test, used to find out whether the means of predisposition towards print advertising and predisposition towards internet advertising are different, difference in group means is statistically significant (t=4,518; p=0,000<0,05). According to these results the mean of predisposition towards print advertising is higher than the means of predisposition towards internet advertising. That means respondents have more positive attitudes toward print advertising. *(Hypothesis is supported.)*

5.6. Hypothesis Testing for the Case of Turkcell's Print Ad

5.6.1. Hypothesis Testing of Theoretical Relationship

5.6.1.1.Effects of Brand Awareness of Turkcell on Attitude toward Turkcell's Print Ad

In this section, the effects of brand awareness of Turkcell on attitude toward Turkcell's print ad are analyzed. Hypotheses related to the relationship between recall of Turkcell and cognitive and affective dimensions of attitude toward Turkcell's print ad are as below:

> **Hypothesis 1a:** Affective dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell.

Table 5.66 : One-way ANOVA Test of the Relationship between Recall of Turkcell and Affective Dimension of Attitude toward Turkcell's Print Ad

	Brand Recall of Turkcell	N	Mean	Std. Deviation	F	P
Affective Dimension	as 1st brand	40	4,7583	1,33544	2,316	0,109
	as 2nd brand	7	3,5714	1,63825		
	as 3rd brand	6	4,5556	0,99815		

According to the results of one-way **ANOVA** test, performed to test the effects of recall of Turkcell on affective dimension of attitude toward Turkcell's print ad, there is no statistically significant difference in group means (F=2,316; p=0,109>0,05). These results depict that recalling the brand as the first brand does not statistically result in more positive attitudes toward Turkcell's print ad on affective dimension. *(Hypothesis is not supported.)*

> **Hypothesis 1b:** Cognitive dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell.

Table 5.67 : One-way ANOVA Test of the Relationship between Recall of Turkcell and Cognitive Dimension of Attitude toward Turkcell's Print Ad

	Brand Recall of Turkcell	N	Mean	Std. Deviation	F	P
Cognitive Dimension	as 1st brand	40	4,5800	1,39066		
	as 2nd brand	7	4,2286	1,07349	0,228	0,797
	as 3rd brand	6	4,4333	0,86178		

One-way ANOVA test, conducted to analyze whether cognitive dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell, depicts that there is no statistically significant difference in group means ($F=0,228$; $p=0,797>0,05$). These results mean that there is no significant base to infer that cognitive dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell. *(Hypothesis is not supported.)*

5.6.1.2. Effects of Attitude toward Turkcell's Print Ad on Turkcell's Brand Image

How Turkcell's brand image dimensions are related to attitude toward Turkcell's print ad is the focus of this section. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward Turkcell's print ad and "favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.

Hypothesis 2b: "Favorability of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.

Table 5.68 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	1,911	3,114	0,003	11,769	0,000	0,293
	Affective Dimension	0,432	3,491	0,001			
	Cognitive Dimension	0,171	1,291	0,203			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Turkcell's print ad and favorability of brand associations, is statistically significant (F=11,769; p=0,000<0,05). There is a significant relationship between affective dimension of attitude to Turkcell's print ad and "favorability of associations" dimension of Turkcell's brand image (t=3,491; p=0,001<0,05.). While holding cognitive dimension constant, one-unit increase in affective dimension leads to 0,432-units increase in favorability of associations (ß=0,432). Cognitive dimension of attitude toward the print ad of Turkcell does not statistically influence "favorability of associations" dimension of Turkcell's brand image (t=1,291; p=0,203>0,05.). % 0,293 of the variance in "favorability of associations" dimension of Turkcell's brand image is explained by cognitive and affective dimensions of attitude toward the print ad of Turkcell (R^2=0,293). Based on this analysis, there is significant eivdence to conclude that "favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad. *(Hypothesis 2a is supported).* However, this analysis do not provide significant base to support the hypothesis related to the effects of cognitive dimension of attitude toward Turkcell's print ad on "favorability of associations" dimension of Turkcell's brand image. *(Hypothesis 2b is not supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.

Hypothesis 2d: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.

Table 5.69 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Uniqueness of Associations	(Constant)	1,411	0,637	0,031	8,815	0,001	0,231
	Affective Dimension	0,428	0,128	0,002			
	Cognitive Dimension	0,089	0,137	0,520			

The regression model, employed to analyze whether uniqueness of brand associations is related to cognitive and affective dimensions of attitude toward Turkcell's print ad, is statistically significant (F=8,815; p=0,001<0,05). There is a significant relationship between affective dimension of attitude toward the print ad of Turkcell and "uniqueness of associations" dimension of Turkcell's brand image (t=0,128; p=0,002<0,05). One-unit increase in affective dimension leads to 0,428-units increase in uniqueness of associations, while holding cognitive dimension constant (ß=0,428). There is no statistically significant relationship between cognitive dimension of attitude toward Turkcell's print ad and uniqueness of brand associations (t=0,137; p=0,520>0,05.). % 0,231 of the variance in uniqueness of brand associations is explained by cognitive and affective dimensions of attitude toward the print ad of Turkcell (R^2=0,293). According to this analysis, there is significant base to state that "uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad. *(Hypothesis 2c is supported.)* However, there is no significant evidence to support the hypothesis related to the effects of cognitive dimension of attitude toward Turkcell's print ad on "uniqueness of associations" dimension of Turkcell's brand image. *(Hypothesis 2d is not supported.)*

Hypothesis 2e: "Strength of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.

Hypothesis 2f: "Strength of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.

Table 5.70 : Regression Analysis of the Relationship between "Strength of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Strength of Associations	(Constant)	1,806	4,018	0,000	6,380	0,003	0,171
	Affective Dimension	0,139	1,534	0,131			
	Cognitive Dimension	0,204	2,101	0,041			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Turkcell's print ad and strength of brand associations, is statistically significant (F=6,380; p=0,003<0,05). There is a significant relationship between cognitive dimension of attitude toward Turkcell's print ad and "strength of associations" dimension of Turkcell's brand image (t=2,101; p=0,041<0,05). One unit increase in cognitive dimension leads to 0,204-units increase in strength of associations (ß=0,204). Affective dimension of attitude toward Turkcell's print ad does not statistically influence "strength of associations" dimension of Turkcell's brand image (t=1,534; p=0,131>0,05.). % 0,171 of the variance in strength of brand associations is explained by cognitive and affective dimensions of attitude toward the print ad of Turkcell (R^2=0,293). These results mean that "strength of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad. *(Hypothesis 2f is supported.)* However, there is no significant base to infer that "strength of associations" dimension of Turkell's brand image is positively

related to affective dimension of attitude toward Turkcell's print ad. *(Hypothesis 2e is not supported.)*

5.6.1.3. Effects of Turkcell's Brand Image on Its Brand Loyalty

This section tests the effects of Turkcell's brand image dimensions on its brand loyalty. Hypotheses related to the relationship between "favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image and its brand loyalty are as below:

> **Hypothesis 3a:** Brand loyalty of Turkcell is positively related to "favorability of associations" dimension of Turkcell's brand image.
>
> **Hypothesis 3b:** Brand loyalty of Turkcell is positively related to "uniqueness of associations" dimension of Turkcell's brand image.
>
> **Hypothesis 3c:** Brand loyalty of Turkcell is positively related to "strength of associations" dimension of Turkcell's brand image.

Table 5.71 : Regression Analysis of the Relationship between Brand Loyalty of Turkcell and "Favorability, Uniqueness and Strength of Associations" Dimensions of Turkcell's Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,801	1,683	0,099	6,799	0,001	0,251
	Favorability of Associations	0,131	0,908	0,368			
	Uniqueness of Associations	0,158	1,181	0,243			
	Strength of Associations	0,237	1,391	0,171			

The regression model of how brand loyalty of Turkcell is related to favorability, uniqueness and strength of brand associations is statistically significant (F=6,799; p=0,001<0,05). The results of the regression analysis, based on the responses derived from Turkcell's print ad, indicate that there is no significant relationship between

"favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image and brand loyalty of Turkcell. In the case of Turkcell's print ad, favorability of associations does not significantly influence brand loyalty, while holding uniqueness and strength of associations constant (t=0,908; p=0,368>0,05). Uniqueness of brand associations does not significantly influence brand loyalty of Turkcell, while holding favorability and strength of brand associations constant (t=1,181; p=0,243>0,05). Strength of brand associations does not significantly influence brand loyalty of Turkcell, while holding favorability and uniqueness of brand associations constant (t=1,391; p=0,171>0,05). These results do not provide significant base to support the hypotheses related how brand loyalty of Turkcell is related to "favorability, uniqueness of strength of associations" dimensions of Turkcell's brand image. *(Hypothesis 3a, hypothesis 3b and hypothesis 3c are not supported.)*

5.6.1.4. Effects of Turkcell's Brand Loyalty on Its Brand Equity

The effects of Turkcell's brand loyalty on its brand equity are analyzed in this section. Hypotheses related to the relationship between brand loyalty and brand equity of Turkcell is as follows:

Hypothesis 4a: Brand equity is positively related to brand loyalty of Turkcell.

Table 5.72 : Regression Analysis of the Relationship between Brand Loyalty and Brand Equity of Turkcell

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	1,106	2,930	0,005	28,630	0,000	0,347
	Brand Loyalty	0,684	5,351	0,000			

The regression model, used to estimate the relationship between brand equity and brand loyalty of Turkcell, is statistically significant (F=28,630; p=0,000<0,05). According to

the results in this case, based on the responses derived from Turkcell's print ad, there is a significant relationship between brand equity and brand loyalty (t=5,351; p=0,000<0,05). One-unit increase in brand loyalty corresponds to 0,684-units increase in brand equity (ß=0,684). % 0,347 of the variance in brand equity of Turkcell is explained by its brand loyalty (R^2=0,347). This analysis means that there is significant base to state that brand equity of Turkcell is positively related to its brand loyalty. *(Hypothesis is supported.)*

5.6.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward Turcell's print ad, and its brand image, brand loyalty and brand equity. Moreover, predisposition towards print advertising is supposed to effect attitude toward Turkcell's print ad. That is why current brand knowledge and predisposition towards print advertising are included as control variables in this research. Following sections contain analyzes related to the effects of current brand knowledge on attitude toward Turkcell's print ad, and its brand image, brand loyalty and brand equity. Moreover analyzes about the effects of predisposition towards print advertising on attitude toward Turkcell's print ad are included in the following sections. Those analyzes are based on the responses derived from Turkcell's print ad.

5.6.2.1. Effects of Current Brand Knowledge on Attitude toward Turkcell's Print Ad

This section analyzes how current brand knowledge effects attitude toward Turkcell's print ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the print ad of Turkcell are as below:

Hypothesis 1a: Affective dimension of attitude toward Turkcell's print ad is positively related to current brand knowledge.

Table 5.73 : Independent T-Test of How the Means of Affective Dimension of Attitude toward Turkcell's Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	5	3,6667	1,95789	-1,575	0,122
	High Levels of Current Brand Knowledge	48	4,6736	1,29737		

The independent t-test, used to analyze whether affective dimension of attitude toward Turkcell's print ad is related to current brand knowledge, points out that there is no significant difference in group means (t=-1,575; p=0,122>0,05). These results do not provide significant evidence to support the hypothesis that affective dimension of attitude toward Turkcell's print ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Turkcell's print ad is positively related to current brand knowledge.

Table 5.74 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward Turkcell's Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Cognitive Dimension	Low Levels of Current Brand Knowledge	5	4,2000	0,97980	-0,573	0,569
	High Levels of Current Brand Knowledge	48	4,5500	1,32440		

According to the results of the independent t-test, performed to analyze the effects of current brand knowledge on cognitive dimension of attitude toward Turkcell's print ad, there is no significant difference in group means (t=-0,573; p=0,569>0,05). These results mean that there is no significant base to infer that cognitive dimension of attitude

toward Turkcell's print ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.6.2.2. Effects of Current Brand Knowledge on Turkcell's Brand Image

This section focuses on testing the effects of current brand knowledge on Turkcell's brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image are as following:

Hypothesis 2a: "Favorability of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.75 : Independent T-Test of How the Means of "Favorability of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	5	3,5333	0,86923	-2,126	0,038
	High Levels of Current Brand Knowledge	48	4,7778	1,27224		

The results of the independent t-test, conducted to test the effects of current brand knowledge on favorability of Turkcell's associations, point out that there is significant difference in group means (t=-2,126; p=0,038<0,05). These results mean that higher levels of current brand knowledge lead to more favorable associations. According to these results, there is significant base to conclude that "favorability of associations" dimension of Turkcell's brand image is positively related to current brand knowledge. *(Hypothesis is supported.)*

Hypothesis 2b: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.76 : **Independent T-Test of How the Means of "Uniqueness of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge**

	Group	N	Mean	Std. Deviation	t	p
Brand Image-Uniqueness of Associations	Low Levels of Current Brand Knowledge	5	2,8000	1,03682	-1,826	0,074
	High Levels of Current Brand Knowledge	48	3,8750	1,26953		

According to the results of independent t-test, performed to test how uniqueness of Turkcell's associations is related to current brand knowledge, there is no significant difference in group means (t=-1,826; p=0,074>0,05). According to these results, there is no significant base to conclude that "uniqueness of associations" dimension of Turkcell's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.77 : Independent T-Test of How the Means of "Strength of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	5	3,3200	0,26833	-0,113	0,911
	High Levels of Current Brand Knowledge	48	3,3667	0,91264		

According to the results of the independent t-test, performed to test how strength of Turkcell's associations is related to current brand knowledge, there is no significant difference in group means (t=-0,113; p=0,911>0,05). According to these results, there is no significant evidence to infer that "strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.6.2.3. Effects of Current Brand Knowledge on Turkcell's Brand Loyalty

The effects of current brand knowledge on Turkcell's brand loyalty are analyzed in this section. Hypothesis related to the relationship between current brand knowledge and Turkcell's brand loyalty is as following:

Hypothesis 3a: Turkcell's brand loyalty is positively related to current brand knowledge.

Table: 5.78. Independent T-Test of How the Means of "Turkcell's Brand Loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	5	2,2000	0,64979	-1,545	0,129
	High Levels of Current Brand Knowledge	48	2,8681	0,93964		

The results of the independent t-test, conducted to test how the means of Turkcell's brand loyalty vary according to the level of current brand knowledge, there is no significant difference in group means (t=-1,545; p=0,129>0,05). These results mean that there is no significant evidence to state that Turkcell's brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.6.2.4. Effects of Current Brand Knowledge on Turkcell's Brand Equity:

The effects of current brand knowledge on Turkcell's brand equity are tested in this section. Hypothesis related to the relationship between current brand knowledge and brand equity of Turkcell is as following:

Hypothesis 4a: Turkcell's brand equity is positively related to current brand knowledge.

Table 5.79 : Independent T-Test of How the Means of "Turkcell's Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Equity	Low Levels of Current Brand Knowledge	5	2,1500	0,60208	-1,984	0,053
	High Levels of Current Brand Knowledge	48	3,1146	1,06311		

As seen in the results of independent t-test, conducted to compare the means of Turkcell's brand equity of the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge, there is no significant difference in group means (t=-1,984; p=0,053>0,05). Based on these results, there is no significant evidence to infer that Turkcell's brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.7. Hypothesis Testing for the Case of Turkcell's Internet Ad

5.7.1. Hypothesis Testing of Theoretical Reletionship

5.7.1.1. Effects of Brand Awareness of Turkcell on Attitude toward Turkcell's Internet Ad

This section focuses on the effects of brand awareness of Turkcell on attitude toward Turkcell's internet ad. Hypotheses related to the relationship between recall of Turkcell and cognitive and affective dimensions of attitude toward Turkcell's internet ad are as follows:

> **Hypothesis 1a:** Affective dimension of attitude toward Turkcell's internet ad is positively related recall of Turkcell.

Table 5.80 : One-way ANOVA Test of the Relationship between Recall of Turkcell and Affective Dimension of Attitude toward Turkcell's Internet Ad

	Brand Recall of Turkcell	N	Mean	Std. Deviation	F	P
Affective Dimension	as 1st brand	44	4,1136	1,57818	3,013	0,059
	as 2nd brand	3	6,3333	0,88192		
	as 3rd brand	3	4,0000	0,60093		

The one-way ANOVA test, employed to test the hypothesis related to the relationship between affective dimension of attitude toward Turkcell's internet ad and recall of Turkcell, indicates that differences across group means are not statistically significant (F=3,013; p=0,059>0,05). According to this analysis, recalling Turkcell as the first brand does not statistically create more positive attitudes toward Turkcell's internet ad on affective dimension. Based on these results there is no significant evidence to support that affective dimension of attitude toward Turkcell's internet ad is positively related to recall of Turkcell. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Turkcell's internet ad is positively related to recall of Turkcell.

Table 5.81 : One-way ANOVA Test of the Relationship between Recall of Turkcell and Cognitive Dimension of Attitude toward Turkcell's Internet Ad

	Brand Recall of Turkcell	**N**	**Mean**	**Std. Deviation**	**F**	**P**
Cognitive Dimension	as 1st brand	44	4,3045	1,51917		
	as 2nd brand	3	4,6000	1,56205	0,057	0,945
	as 3rd brand	3	4,4000	1,40000		

As seen in the results of the one-way ANOVA test, used to analyze whether cognitive dimension of attitude toward Turkcell's internet ad is positively related to recall of Turkcell, there is no statistically significant difference in group means (F=0,057; p=0,945>0,05). These results points out that recalling Turkcell as the first brand does not lead to more positive attitudes toward Turkcell's internet ad on cognitive dimension. According to this analysis, there is no significant base to infer that recall of Turkcell effects cognitive dimension of attitude toward Turkcell's internet ad. *(Hypothesis is not supported.)*

5.7.1.2. Effects of Attitude toward Turkcell's Internet Ad on Turkcell's Brand Image

The effects of attitude toward Turkcell's internet ad on Turkcell's brand image dimensions are tested in this section. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward Turkcell's internet ad and "favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.

Hypothesis 2b: "Favorability of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.

Table 5.82 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	521,000	4,180	0,000	15,146	0,000	0,366
	Affective Dimension	0,422	3,434	0,001			
	Cognitive Dimension	0,131	1,472	0,148			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Turkcell's internet ad and favorability of brand associations, is statistically significant (F=15,146; p=0,000<0,05). There is a significant relationship between affective dimension of attitude toward Turkcell's internet ad and "favorability of associations" dimension of Turkcell's brand image (t=3,434; p=0,001<05). One-unit increase in affective dimension leads to 0,422-units increase in favorability of associations (ß=0,422). Cognitive dimension of attitude toward the internet ad of Turkcell does not statistically influence favorability of brand associations (t=1,472; p=0,148>0,05). % 0,366 of the variance in favorability of associations is explained by cognitive and affective dimensions of attitude to the internet ad of Turkcell (R^2=0,347). Based on these results, there is significant evidence to conclude that "favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad. *(Hypothesis 2a is supported.)* However, these results do not provide significant evidence to support the hypothesis related to the relationship between cognitive dimension of attitude toward

Turkcell's internet ad and "favorability of associations" dimension of Turkcell's brand image. *(Hypothesis 2b is not supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.

Hypothesis 2d: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.

Table 5.83 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Uniqueness of Associations	(Constant)	0,952	1,468	0,149	12,022	0,000	0,310
	Affective Dimension	0,091	0,594	0,555			
	Cognitive Dimension	0,587	3,595	0,001			

The regression model, employed to analyze whether uniqueness of brand associations is related to cognitive and affective dimensions of attitude toward Turkcell's internet ad, is statistically significant (F=12,022; p=0,000<0,05). There is a significant relationship between cognitive dimension of attitude toward Turkcell's internet ad and "uniqueness of associations" dimension of Turkcell's brand image. (t=3,595; p=0,001<0,05). One-unit increase in cognitive dimension leads to 0,587-units increase in uniqueness of associations, while holding affective dimension constant (ß=0,587). There is not a statistically significant relationship between affective dimension of attitude toward Turkcell's internet ad and uniqueness of associations (t=0,594; p=0,555>0,05). % 0,310 of the variance in uniqueness of brand associations is explained by cognitive and affective dimensions of attitude toward the internet ad of Turkcell (R^2=0,310). These

results mean that "uniqueness of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad. *(Hypothesis 2d is supported.)* However, according to these results there is no significant base to state that "uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad. *(Hypothesis 2c is not supported.)*

> **Hypothesis 2e:** "Strength of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.
>
> **Hypothesis 2f:** "Strength of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.

Table 5.84 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Turkcell's Brand Image and Affective/Cognitive Dimensions of Attitude toward Turkcell's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Strength of Associations	(Constant)	2,105	4,892	0,000	3,258	0,047	0,084
	Affective Dimension	0,147	1,447	0,154			
	Cognitive Dimension	0,093	0,855	0,397			

The regression model, used to test the relationship between cognitive and affective dimensions of attitude toward Turkcell's internet ad and strength of brand associations, is statistically significant (F=3,258; p=0,047<0,05). There is no significant relationship between affective dimension of attitude toward Turkcell's internet ad and strength of brand associations (t=1,447; p=0,154>0,05). The findings of the regression analysis also indicate that cognitive dimension of attitude toward Turkcell's internet ad does not significantly have an effect on "strength of associations" dimension of Turkcell's brand

image (t=0,855; p=0,397>0,05). Based on these results, there is no significant evidence to conclude that "strength of associations" dimension of Turkcell's brand image is positively related to affective and cognitive dimensions of attitude toward Turkcell's internet ad. *(Hyptheses are not supported.)*

5.7.1.3. Effects of Turkcell's Brand Image on Its Brand Loyalty

These sections test the effects of Turkcell's brand image dimensions on its brand loyalty. Hypotheses related to the relationship between "favorability, uniqueness and strength of associations" dimensions of Turkcell's brand image and its brand loyalty are as below:

Hypothesis 3a: Brand loyalty of Turkcell is positively related to "favorability of associations" dimension of Turkcell's brand image.

Hypothesis 3b: Brand loyalty of Turkcell is positively related to "uniqueness of associations" dimension of Turkcell's brand image.

Hypothesis 3c: Brand loyalty of Turkcell is positively related to "strength of associations" dimension of Turkcell's brand image.

Table 5.85 :Regression Analysis of the Relationship between Brand Loyalty of Turkcell and "Favorability, Uniqueness and Strength of Associations" Dimensions of Turkcell's Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,430	0,950	0,347	15,112	0,000	0,464
	Strength of Associations	0,715	4,696	0,000			
	Favorability of Associations	0,071	0,596	0,554			
	Uniqueness of Associations	0,007	0,010	0,951			

The regression model of how brand loyalty of Turkcell is related to favorability, strength and uniqueness of brand associations, is statistically significant (F=15,112; p=0,000<0,05). The results of the regression analysis, performed through the responses derived from the internet ad of Turkcell, indicate that there is a significant relationship between strength of brand associations and brand loyalty of Turkcell and one-unit increase in strength of associations corresponds to 0,715-units increase in brand loyalty, while holding favorability and uniqueness of associations constant (ß=0,715; t=4,696; p=0,000<0,05). In the case of Turkcell's internet ad, favorability of associations does not significantly influence brand loyalty of Turkcell, while holding uniqueness and strength of associations constant (t=0,596; p=0,554>0,05.). Uniqueness of associations does not significantly influence brand loyalty of Turkcell, while holding favorability and strength of associations constant (t=0,010; p=0,951>0,05.) % 0,464 of the variance in brand loyalty of Turkcell is explained by strength, favorability and uniqueness of associations (R^2=0,464). Based on these results, there is no significant base to infer that Turkcell's brand loyalty is positively related to "favorability and uniqueness of associations" dimensions of Turkcell's brand image. *(Hypothesis 3a and hypothesis 3b is not supported.)* However, there is significant evidence to support the hypothesis related to the relationship between "strength of associations" dimension of Turkcell's brand image and its brand loyalty. *(Hypothesis 3c is supported.)*

5. 7.1.4. Effects of Turkcell's Brand Loyalty on Its Brand Equity

The effects of Turkcell's brand loyalty on its brand equity are analyzed in this section. Hypothesis related to the relationship between brand loyalty and brand equity of Turkcell is as follows:

Hypothesis 4a: Brand equity is positively related to brand loyalty of Turkcell.

Table 5.86 : Regression Analysis of the Relationship between Brand Loyalty and Brand Equity of Turkcell

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	1,529	4,048	0,000	29,002	0,000	0,364
	Brand Loyalty	0,633	5,385	0,000			

The regression model, used to estimate the relationship between brand equity of Turkcell and its brand loyalty, is statistically significant (F=29,002; p=0,000<0,05). The regression analysis, performed through the responses derived from the internet ad of Turkcell, points out that there is a significant relationship between brand equity and brand loyalty of Turkcell (t=5,385; p=0,000<0,05.). One-unit increase in brand loyalty corresponds to 0,633-units increase in brand equity (ß=0,633). In the case of Turkcell's internet ad, % 0,364 of the variance in brand equity of Turkcell is explained by brand loyalty (R^2=0,464). These results provide a significant base to infer that brand equity of Turkcell is positively related to its brand loyalty. *(Hypothesis is supported).*

5.7.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward Turkcell's internet ad, and its brand image, brand loyalty and brand equity. Moreover, predisposition towards internet advertising is supposed to effect attitude toward Turkcell's internet ad. That is why current brand knowledge and predisposition towards internet advertising are included as control variables in this research. Following sections contain analyzes related to the effects of current brand knowledge on attitude toward Turkcell's internet ad, and its brand image, brand loyalty and brand equity. Moreover analyzes about the effects of predisposition towards internet advertising on attitude toward Turkcell's internet ad are included in the following sections. Those analyzes are based on the responses derived from Turkcell's internet ad.

5.7.2.1. Effects of Current Brand Knowledge on Attitude toward Turkcell's Internet Ad

This section analyzes how current brand knowledge effects attitude toward Turkcell's internet ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the internet ad of Turkcell are as below:

Hypothesis 1a: Affective dimension of attitude toward Turkcell's internet ad is positively related to current brand knowledge.

Table 5.87 : Independent T-Test of How the Means of Affective Dimension of Attitude toward Turkcell's Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	2	5,0000	0,47140	0,688	0,495
	High Levels of Current Brand Knowledge	48	4,2083	1,61095		

The independent t-test, used to analyze the effects of current brand knowledge on affective dimension of attitude toward Turkcell's internet ad, indicates that there is no significant difference in group means (t=-0,688; p=0,495>0,05).According to these results of the independent t-test, there is no significant base to conclude that affective dimension of attitude toward Turkcell's internet ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Turkcell's internet ad is positively related to current brand knowledge.

Table 5.88 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward Turkcell's Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Cognitive Dimension	Low Levels of Current Brand Knowledge	2	4,3000	0,98995	-0,027	0,979
	High Levels of Current Brand Knowledge	48	4,3292	1,51109		

According to the results of the independent t-test, conducted to analyze the effects of current brand knowledge on cognitive dimension of attitude toward Turkcell's internet ad, there is no significant difference in group means (t=-0,027; p=0,979>0,05). Based on these results, there is no significant evidence to infer that cognitive dimension of attitude toward Turkcell's internet ad is related to current brand knowledge. *(Hypothesis is not supported.)*

5.7.2.2. Effects of Current Brand Knowledge on Turkcell's Brand Image

This section focuses on testing the effects of current brand knowledge on Turkcell's brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "strength, favorability and uniqueness of associations" dimensions of brand image are as following:

Hypothesis 2a: "Favorability of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.89 : Independent T-Test of How the Mmeans of "Favorability of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	2	4,5000	0,70711	-0,309	0,759
	High Levels of Current Brand Knowledge	48	4,8125	1,41238		

The results of the independent t-test, used to analyze the effects of current brand knowledge on favorability of Turkcell's associations, indicate that there is no significant difference in group means (t=-0,309; p=0,759>0,05). These results mean that there is no significant base to support the hypothesis that "favorability of associations" dimension of Turkcell's brand image is related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2b: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.90 : Independent T-Test of How the Means of "Uniqueness of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Uniqueness of Associations	Low Levels of Current Brand Knowledge	2	4,5000	0,70711	0,536	0,595
	High Levels of Current Brand Knowledge	48	3,8542	1,68522		

As seen in the results of the independent t-test, conducted to analyze how uniqueness of Turkcell's associations is related to current brand knowledge, difference in group means is not statistically significant (t=0,536; p=0,595>0,05). These results mean that there is no significant base to support the hypothesis that "uniqueness of associations"

dimension of Turkcell's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.

Table 5.91 : Independent T-Test of How the Means of "Strength of Associations" Dimension of Turkcell's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	2	2,9000	0,42426	-0,342	0,734
	High Levels of Current Brand Knowledge	48	3,1375	0,97121		

Based on the results of the independent t-test, conducted to analyze how strength of Turkcell's associations is related to current brand knowledge, there is no significant difference in group means (t=-0,342; p=0,734>0,05). According to these results, there is no significant base to support the hypothesis that "strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.7.2.3. Effects of Current Brand Knowledge on Turkcell's Brand Loyalty

The effects of current brand knowledge on Turkcell's brand loyalty are analyzed in this section. Hypothesis related to the relationship between current brand knowledge and Turkcell's brand loyalty is as following:

Hypothesis 3a: Turkcell's brand loyalty is positively related to current brand knowledge.

Table 5.92 : Independent T-Test of How the Means of "Turkcell's Brand Loyalty"
Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	2	2,8333	0,70711	-0,269	0,789
	High Levels of Current Brand Knowledge	48	3,0417	1,07985		

As seen in the results of the independent t-test, conducted to compare the means of Turkcell's brand loyalty across the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge, difference in group means is not statistically significant (t=-0,269; p=0,789>0,05). These results depict that there is no significant evidence to infer that Turkcell's brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.7.2.4. Effects of Current Brand Knowledge on Turkcell's Brand Equity:

The effects of current brand knowledge on Turkcell's brand equity are tested in this section. Hypothesis related to the relationship between current brand knowledge and brand equity of Turkcell is as following:

Hypothesis 4a: Turkcell's brand equity is positively related to current brand knowledge.

Table 5.93 : Independent T-Test of How the Means of "Turkcell's Brand Equity"
Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Equity	Low Levels of Current Brand Knowledge	2	2,5000	0,70711	-1,257	0,215
	High Levels of Current Brand Knowledge	48	3,4896	1,09758		

According to the results of the independent t-test, performed to test how Turkcell's brand equity vary according to the levels of current brand knowledge, there is no significant difference in group means (t=-1,257; p=0,215>0,05). Based on these results, there is no significant evidence to conclude that Turkcell's brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.8. Hypothesis Testing for the Case of Vodafone's Print Ad

5.8.1. Hypothesis Testing of Theoretical Relationship

5.8.1.1. Effects of Brand Awareness of Vodafone on Attitude toward Vodafone's Print Ad

The effects of brand awareness of Vodafone on attitude toward Vodafone's print ad are tested in this section. Hypotheses related to the relationship between recall of Vodafone and cognitive and affective dimensions of attitude toward Vodafone's print ad are as below:

> **Hypothesis 1a:** Affective dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone**.**

Table 5.94 : One-way ANOVA Test of the Relationship between Recall of Vodafone and Affective Dimension of Attitude toward Vodafone's Print Ad

	Brand Recall of Vodafone	N	Mean	Std. Deviation	F	P
Affective Dimension	as 1st brand	6	3,5833	1,45201	1,887	0,164
	as 2nd brand	17	2,9804	1,55108		
	as 3rd brand	22	3,8030	1,07600		

The one-way ANOVA test, performed to analyze the relationship between affective dimension of attitude toward Vodafone's print ad and recall of Vodafone, indicates that there is no statistically significant difference in group means (F=1,887; p=0,164>0,05).

According to these results, there is no significant base to conclude that affective dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone.

Table 5.95 : One-way ANOVA Test of the Relationship between Recall of Vodafone and Cognitive Dimension of Attitude toward Vodafone's Print Ad

	Brand Recall of Vodafone	**N**	**Mean**	**Std. Deviation**	**F**	**P**
Cognitive Dimension	as 1st brand	6	3,9333	0,54650		
	as 2nd brand	17	3,7294	1,70285	0,519	0,599
	as 3rd brand	22	4,1545	1,03451		

The results of the one-way ANOVA test, conducted to test the effects of recall of Vodafone on cognitive dimension of attitude toward Vodafone's print ad, depicts that there is no significant differences in group means (F=0,519; p=0,599>0,05). This analysis points out that recalling Vodafone as the first brand does not lead to more positive attitudes toward Vodafone's print ad. There is no significant evidence to infer that cognitive dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone. *(Hypothesis is not supported.)*

5.8.1.2. Effects of Attitude toward Vodafone's Print Ad on Vodafone's Brand Image

How Vodafone's brand image dimensions are related to attitude toward Vodafone's print ad is the focus of this section. Hypotheses related to the relationship between cognitive and affective dimensions of attitude toward Vodafone's print ad and its brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's print ad.

Hypothesis 2b: "Favorability of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's print ad.

Table 5.96 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude toward Vodafone's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	1,063	2,911	0,006			
	Affective Dimension	0,472	5,010	0,000	29,036	0,000	0,555
	Cognitive Dimension	0,213	2,150	0,037			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Vodafone's print ad and "favorability of associations" dimension of Vodafone's brand image, is statistically significant (F=29,036; p=0,000<0,05). There is a significant relationship between affective dimension of attitude toward Vodafone's print ad and favorability of brand associations (t=5,010; p=0,000<0,05). One-unit increase in affective dimension leads to 0,472-units increase in favorability of brand associations, while holding cognitive dimension constant (ß=0,472). Moreover, cognitive dimension significantly influence favorability of associations and one-unit increase in cognitive dimension of attitude toward Vodafone's print ad corresponds to 0,213-units increase in favorability of associations, while holding affective dimension constant (ß=0,213; t=2,150; p=0,037<0,05). % 0,555 of the variance in favorability of brand associations is explained by cognitive and affective dimensions of attitude to the print ad of Vodafone (R^2=0,555). Based on these results, there is significant base to conclude that "favorability of associations" dimension of

Vodafone's brand image is positively related to affective and cognitive dimension of Vodafone's print ad. *(Hypothesis 2a and hypothesis 2b are supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's print ad.

Hypothesis 2d: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's print ad.

Table 5.97 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude toward Vodafone's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R²
Brand Image - Uniqueness of Associations	(Constant)	0,843	1,534	0,132	13,062	0,000	0,349
	Affective Dimension	0,611	4,306	0,000			
	Cognitive Dimension	0,001	0,007	0,994			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Vodafone's print ad and "uniqueness of associations" dimension of Vodafone's brand image, is statistically significant (F=13,062; p=0,000<0,05). There is a significant relationship between affective dimension of attitude toward Vodafone's print ad and uniqueness of brand associations (t=4,306; p=0,000<0,05). One-unit increase in affective dimension leads to 0,611-units increase in favorability of brand associations, while holding cognitive dimension constant (ß=0,611). Cognitive dimension of attitude toward Vodafone's print ad does not significantly influence uniqueness of brand associations (t=0,007; p=0,994>0,05). % 0,349 of the variance in uniqueness of brand associations is explained by cognitive and affective dimensions of attitude toward print ad of Vodafone (R²=0,349). These results mean that there is significant evidence to infer that "uniqueness of associations"

dimension of brand image is positively related to affective dimension of attitude toward Vodafone's print ad. *(Hypothesis 2c is supported.)* However, this analysis does not provide significant base to support the hypothesis related to the relationship between cognitive dimension of attitude toward Vodafone's print ad and "uniqueness of associations" dimension of Vodafone's brand image. *(Hypothesis 2d is not supported.)*

Hypothesis 2e: "Strength of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's print ad.

Hypothesis 2f: "Strength of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's print ad.

Table 5.98 : Regression Analysis of the Relationship between "Strength of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude Toward Vodafone's Print Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Strength of Associations	(Constant)	0,896	3,400	0,001	27,137	0,000	0,537
	Affective Dimension	0,366	5,378	0,000			
	Cognitive Dimension	0,097	1,356	0,182			

The regression model, used to estimate the relationship between cognitive and affective dimensions of attitude toward Vodafone's print ad and "strength of associations" dimension of Vodafone's brand image, is statistically significant (F=27,137; p=0,000<0,05). There is a significant relationship between affective dimension of attitude toward Vodafone's print ad and strength of brand associations (t=5,378; p=0,000<0,05). One-unit increase in affective dimension leads to 0,366-units increase in strength of brand associations, while holding cognitive dimension constant (ß=0,366). Cognitive dimension of attitude toward Vodafone's print ad does not significantly influence "strength of associations" dimension of Vodafone's brand image (t=1,356;

p=0,182>0,05). % 0,537 of the variance in strength of associations is explained by cognitive and affective dimensions of attitude toward the print ad of Vodafone (R^2=0,537). According to these results, there is significant evidence to support the hypothesis related to the relationship between affective dimension of attitude toward Vodafone's print ad and "strength of associations" dimension of Vodafone's brand image. *(Hypothesis 2e is supported.)* However, there is no significant base to state that "strength of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's print ad. *(Hypothesis 2f is not supported.)*

5.8.1.3. Effects of Vodafone's Brand Image on Its Brand Loyalty

This section analyzes the effects of Vodafone's brand image dimensions on its brand loyalty. Hypotheses related to the relationship between "strength, favorability and uniqueness of associations" dimensions of Vodafone's brand image and its brand loyalty are as below:

Hypothesis 3a: Brand loyalty of Vodafone is positively related to "favorability of associations" dimension of Vodafone's brand image.

Hypothesis 3b: Brand loyalty of Vodafone is positively related to "uniqueness of associations" dimension of Vodafone's brand image.

Hypothesis 3c: Brand loyalty of Vodafone is positively related to "strength of associations" dimension of Vodafone's brand image.

Table 5.99 : Regression Analysis of the Relationship between Brand Loyalty of Vodafone and "Favorability, Uniqueness and Strength of Associations" Dimensions of Vodafone's Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,624	1,645	0,107	4,918	0,005	0,207
	Strength of Associations	0,130	0,718	0,476			
	Favorability of Associations	0,213	1,573	0,123			
	Uniqueness of Associations	0,081	0,797	0,430			

The regression model, used to analyze the relationship between Vodafone's brand loyalty and its brand image dimensions, is statistically significant (F=4,918; p=0,005<0,05). According to the results of the regression analysis, performed through the responses derived from Vodafone's print ad, there is no significant relationship between Vodafone's brand loyalty and its brand image dimensions. Strength of brand associations does not statistically influence Vodafone's brand loyalty (t=0,718; p=0,476>0,05). "Favorability of associations" dimension of Vodafone's brand image does not significantly have an influence on its brand loyalty (t=1,573; p=0,123>0,05). Brand loyalty of Vodafone is not related to uniqueness of associations (t=0,797; p=0,430>0,05). These results do not provide to significant evidence to support the hypotheses related to how brand loyalty of Vodafone is related to its brand image dimensions. *(Hypothesis 3a, hypothesis 3b and hypothesis 3c are not supported.)*

5.8.1.4. Effects of Vodafone's Brand Loyalty on Its Brand Equity

This section focuses on the effects of Vodafone's brand loyalty on its brand equity. Hypotheses related to the relationship between brand loyalty and brand equity of Vodafone is as follows:

Hypothesis 4a: Brand equity is positively related to brand loyalty of Vodafone.

Table 5.100 : Regression Analysis of the Relationship between Brand Loyalty and Brand Equity of Vodafone

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	1,225	4,772	0,000	20,435	0,000	0,302
	Brand Loyalty	0,557	4,521	0,000			

The regression model, used to test the relationship between Vodafone's brand equity and its brand loyalty, is statistically significant (F=20,435; p=0,000<0,05). Regression analysis, based on the responses derived from Vodafone's print ad, indicates that there is a significant relationship between Vodafone's brand equity and its brand loyalty (t=4,521; p=0,000<0,05). One-unit increase in brand loyalty leads to 0,557-units increase in brand equity (ß=0,557). % 0,302 of the variance in Vodafone's brand equity is explained by its brand loyalty, in the case of Vodafone's print ad (R^2=0,302). These results provide a significant base to state Vodafone's brand equity is positively related to its brand loyalty. *(Hypothesis is supported.)*

5.8.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward Vodafone's print ad, and its brand image, brand loyalty and brand equity. Moreover, predisposition towards print advertising is supposed to effect attitude toward Vodafone's print ad. That is why current brand knowledge and predisposition towards print advertising are included as control variables in this research. Following sections contain analyzes related to the effects of current brand knowledge on attitude toward Vodafone's print ad, and its brand image, brand loyalty and brand equity. Moreover analyzes about the effects of predisposition towards print advertising on attitude toward Vodafone's print ad are included in the following sections. Those analyzes are based on the responses derived from Vodafone's print ad.

5.8.2.1. Effects of Current Brand Knowledge on Attitude toward Vodafone's Print Ad

This section analyzes how current brand knowledge effects attitude toward Vodafone's print ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the print ad of Vodafone are as below:

Hypothesis 1a: Affective dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge.

Table 5.101 : Independent T-Test of How the Means of Affective Dimension of Attitude toward Vodafone's Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	8	3,2500	0,95535	-0,511	0,612
	High Levels of Current Brand Knowledge	38	3,5175	1,40665		

As seen in the results of the independent t-test, used to analyze how affective dimension of attitude toward Vodafone's print ad is related to current brand knowledge, difference in group means is not statistically significant (t=-0,511 p=0,612>0,05). These results mean that there is no significant evidence to support the hypothesis that affective dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge.

Table 5.102 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward Vodafone's Print Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Cognitive Dimension	Low Levels of Current Brand Knowledge	8	3,5750	1,44395	-0,911	0,367
	High Levels of Current Brand Knowledge	38	4,0263	1,23828		

The results of the independent t-test, used to test the relationship between cognitive dimension of attitude toward Vodafone's print ad and current brand knowledge, depict that difference in group means is not statistically significant (t=-0,911 p=0,367>0,05). These results mean that there is no significant base to infer that cognitive dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.8.2.2. Effects of Current Brand Knowledge on Vodafone's Brand Image

This section focuses on testing the effects of current brand knowledge on Vodafone's brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "favorability, uniqueness and strength of associations" dimensions of brand image are as following:

> **Hypothesis 2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.103 : Independent T-Test of How the Means of "Favorability of Associations" Dimension of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	8	3,2917	0,91613	-0,731	0,469
	High Levels of Current Brand Knowledge	38	3,5965	1,09916		

The results of the independent t-test, used to analyze how favorability of Vodafone's associations is related to current brand knowledge, depict that difference in group means is not statistically significant (t=-0,731 p=0,469>0,05). Based on this analysis, there is no significant base to support the hypothesis that "favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2b: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.104 :   Independent T-Test of How the Means of "Uniqueness of Associations" Dimension of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Uniqueness of Associations	Low Levels of Current Brand Knowledge	8	3,3125	1,03294	0,806	0,424
	High Levels of Current Brand Knowledge	38	2,8947	1,38114		

The results of the independent t-test, conducted to test how uniqueness of Vodafone's associations is related to current brand knowledge, indicate that difference in group means is not statistically significant (t=-0,806 p=0,424>0,05). These results mean that there is no significant base to conclude that "uniqueness of associations" dimension of

Vodafone's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.105 : Independent T-Test of How the Means of "Strength of Associations" Dimension of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	8	2,5500	0,67401	0,009	0,993
	High Levels of Current Brand Knowledge	38	2,5474	0,77903		

Based on the results of the independent t-test, conducted to test the relationship between strength of Vodafone's associations and current brand knowledge, there is no significant difference in group means (t=0,009 p=0,993>0,05). These results depict that there is no significant base to support the hypothesis that "strength of associations" dimension of Vodafone's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.8.2.3. Effects of Current Brand Knowledge on Vodafone's Brand Loyalty

The effects of current brand knowledge on Vodafone's brand loyalty are analyzed in this section. Hypothesis related to the relationship between current brand knowledge and Vodafone's brand loyalty is as following:

Hypothesis 3a: Vodafone's brand loyalty is positively related to current brand knowledge.

Table 5.106 : Independent T-Test of How the Means of "Vodafone's Brand loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	8	2,0417	0,76506	0,381	0,705
	High Levels of Current Brand Knowledge	38	1,9298	0,75201		

As seen in the results of the independent t-test, conducted to compare Vodafone's brand loyalty means of the respondents with low levels of current brand knowledge to those with high levels of current brand knowledge, there is no significant difference in group means (t=0,381 p=0,705>0,05). These results mean that there is no significant evidence to infer that Vodafone's brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.8.2.4. Effects of Current Brand Knowledge on Vodafone's Brand Equity:

The effects of current brand knowledge on Vodafone's brand equity are tested in this section. Hypothesis related to the relationship between current brand knowledge and brand equity of Vodafone is as following:

Hypothesis 4a: Vodafone's brand equity is positively related to current brand knowledge.

Table 5.107 : Independent T-Test of How the Means of "Vodafone's Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	P
Brand Equity	Low Levels of Current Brand Knowledge	8	2,4688	0,69997	0,666	0,509
	High Levels of Current Brand Knowledge	38	2,2763	0,75065		

According to the results of the independent t-test, conducted to test how the means of Vodafone's brand equity vary according to the level of current brand knowledge, there is no significant difference in group means (t=0,666 p=0,509>0,05). Based on these results there is no significant evidence to state that Vodafone's brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.9. Hypothesis Testing for the Case of Vodafone's Internet Ad

5.9.1. Hypothesis Testing of Theoretical Relationship

5.9.1.1. Effects of Brand Awareness of Vodafone on Attitude toward Vodafone's Internet Ad

The effects of brand awareness of Vodafone on attitude toward Vodafone's internet ad are tested in this section. Hypotheses related to the relationship between recall of Vodafone and cognitive and affective dimensions of attitude toward Vodafone's internet ad are as below:

Hypothesis 1a: Affective dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone.

Table 5.108 : One-way ANOVA Test of the Relationship between Recall of Vodafone and Affective Dimension of Attitude toward Vodafone's Internet Ad

	Recall of Vodafone	N	Mean	Std. Deviation	F	P
Affective Dimension	as 1st brand	12	4,5833	1,25630	7,192	0,002
	as 2nd brand	30	3,1278	1,13351		
	as 3rd brand	16	3,4583	1,00462		

As seen in the results of one-way ANOVA test, performed to test the effects of recall of Vodafone on cognitive dimension of attitude toward Vodafone's internet ad, differences

across group means are statistically significant (F=7,192; p=0,002<0,05). These results indicate that recalling Vodafone as the first brand corresponds to more positive attitudes toward Vodafone's internet ad on affective dimension. Based on these results, there is significant evidence to conclude that affective dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone. *(Hypothesis is supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone.

Table 5.109 : One-way ANOVA Test of the Relationship between Recall of Vodafone and Cognitive Dimension of Attitude toward Vodafone's Internet Ad

	Recall of Vodafone	N	Mean	Std. Deviation	F	P
Cognitive Dimension	as 1st brand	12	4,5833	1,57355	1,332	0,272
	as 2nd brand	30	3,8600	1,56086		
	as 3rd brand	16	3,7750	1,00100		

As seen in the results of the one-way ANOVA test, conducted to analyze how cognitive dimension of attitude toward Vodafone's internet ad is related to recall of Vodafone, there is no statistically significant difference in group means (F=1,332; p=0,272>0,05). Recalling Vodafone as the first brand does not statistically result in more positive attitudes toward Vodafone's internet ad on cognitive dimension. These results do not provide significant base to support that cognitive dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone. *(Hypothesis is not supported.)*

5.9.1.2. Effects of Attitude toward Vodafone's Internet Ad on Vodafone's Brand Image

How Vodafone's brand image dimensions are related to attitude toward Vodafone's internet ad is the focus of this section. Hypotheses related to the relationship between

cognitive and affective dimensions of attitude toward Vodafone's internet ad and its brand image are as below:

Hypothesis 2a: "Favorability of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.

Hypothesis 2b: "Favorability of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.

Table 5.110 : Regression Analysis of the Relationship between "Favorability of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude toward Vodafone's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Favorability of Associations	(Constant)	0,391	1,208	0,232	57,199	0,000	0,660
	Affective Dimension	0,587	6,645	0,000			
	Cognitive Dimension	0,314	4,131	0,000			

The regression model, used to analyze the relationship between cognitive and affective dimensions of attitude toward Vodafone's internet ad and "favorability of associations" dimension of Vodafone's brand image, is statistically significant (F=57,199; p=0,000<0,05). According to the regression model, favorability of brand associations is significantly related to attitude toward the internet ad of Vodafone. There is a significant relationship between cognitive dimension of attitude toward Vodafone's internet ad and favorability of brand associations and one unit-increase in cognitive dimension leads to 0,314-units increase in favorability of brand associations (ß=0,314; t=4,131; p=0,000<0,05). Affective dimension of attitude toward the internet of Vodafone also significantly influences favorability of associations and one-unit increase in affective dimension corresponds to 0,587-units increase in favorability of associations (ß= 0,587; t=6,645; p=0,000<0,05). % 0,660 of the variance in favorability of brand associations is

explained by cognitive and affective dimensions of attitude to Vodafone's internet ad (R^2=0,302). These results mean that there is significant evidence to support the hypotheses related to the relationship between cognitive and affective dimensions of attitude toward Vodafone's internet ad and "favorability of associations" dimension of Vodafone's brand image. *(Hypothesis 2a and hypothesis 2b are supported.)*

Hypothesis 2c: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.

Hypothesis 2d: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.

Table 5.111 : Regression Analysis of the Relationship between "Uniqueness of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude Toward Vodafone's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Uniqueness of Associations	(Constant)	0,725	1,701	0,094	17,092	0,000	0,357
	Affective Dimension	0,579	4,981	0,000			
	Cognitive Dimension	0,028	0,276	0,784			

The regression model, applied to analyze the relationship between cognitive and affective dimensions of attitude toward Vodafone's internet ad and "uniqueness of associations" dimension of Vodafone's brand image, is statistically significant (F=17,092; p=0,000<0,05). There is a significant relationship between affective dimension of attitude toward the internet ad of Vodafone and uniqueness of brand associations (t=4,981; p=0,000<0,05). One-unit increase in affective dimension corresponds to 0,579-units increase in uniqueness of brand associations (ß= 0,579). While holding affective dimension constant, cognitive dimension of attitude toward Vodafone's internet ad does not statistically influence uniqueness of brand associations

(t=0,276; p=0,784>0,05). % 0,357 of the variance in "uniqueness of associations" dimension of Vodafone's brand image is explained by cognitive and affective dimensions of attitude toward Vodafone's internet ad (R^2=0,357). According to these results hypothesis related to the relationship between affective dimension of attitude toward the internet ad of Vodafone and "uniqueness of associations" dimension of Vodafone's brand image is supported. *(Hypothesis 2c is supported.)* However, there is no significant base to conclude that "uniqueness of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad. *(Hypothesis 2d is not supported.)*

Hypothesis 2e: "Strength of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.

Hypothesis 2f: "Strength of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.

Table 5.112 : Regression Analysis of the Relationship between "Strength of Associations" Dimension of Vodafone's Brand Image and Affective/Cognitive Dimensions of Attitude toward Vodafone's Internet Ad

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Image - Strength of Associations	(Constant)	1,549	6,522	0,000	12,560	0,000	0,285
	Cognitive Dimension	0,120	2,115	0,036			
	Affective Dimension	0,190	2,932	0,005			

The regression model, used to analyze the relationship between cognitive and affective dimensions of attitude toward Vodafone's internet ad and "strength of associations" dimension of Vodafone's brand image, is statistically significant (F=12,560; p=0,000<0,05). The results of the regression analysis indicate that strength of brand associations is significantly related to attitude toward the internet ad of Vodafone. There

is a significant relationship between cognitive dimension of attitude toward Vodafone's internet ad and strength of brand associations and one-unit increase in cognitive dimension corresponds to an average increase in strength of brand associations of 0,120 (ß= 0,120; t=2,115; p=0,036<0,05). Affective dimension of attitude toward the internet ad of Vodafone has also significant relationship with strength of brand associations (t=2,932; p=0,005<0,05). One-unit increase in affective dimension leads to 0,190-units increase in strength of associations, while holding cognitive dimension constant (ß=0,190). % 0,285 of the variance in strength of brand associations is explained by cognitive and affective dimensions of attitude toward the internet ad of Vodafone (R^2=0,285). Based on this analysis, there is significant evidence to conclude that "strength of associations" dimension of Vodafone's brand image is positively related to affective and cognitive dimension of attitude toward Vodafone's internet ad. *(Hypothesis 2e and hypothesis 2f are supported.)*

5.9.1.3. Effects of Vodafone's Brand Image on Its Brand Loyalty

In this section, the effects of Vodafone's brand image dimensions on its brand loyalty are analyzed. Hypotheses related to the relationship between "favorability, uniqueness and strength of associations" dimensions of Vodafone's brand image and its brand loyalty are as below:

Hypothesis 3a: Brand loyalty of Vodafone is positively related to "favorability of associations" dimension of Vodafone's brand image.

Hypothesis 3b: Brand loyalty of Vodafone is positively related to "uniqueness of associations" dimension of Vodafone's brand image.

Hypothesis 3c: Brand loyalty of Vodafone is positively related to "strength of associations" dimension of Vodafone's brand image.

Table 5.113 : Regression Analysis of the Relationship between Brand Loyalty of Vodafone and "Favorability, Uniqueness and Strength of Associations" Dimensions of Vodafone's Brand Image

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Loyalty	(Constant)	0,486	1,034	0,306	6,552	0,001	0,223
	Favorability of Associations	0,316	2,650	0,010			
	Uniqueness of Associations	0,075	0,661	0,511			
	Strength of Associations	0,288	1,374	0,175			

The regression model, applied to test how Vodafone's brand loyalty is related to its brand image dimensions, is statistically significant (F=6,552; p=0,001<0,05). According to the results of the regression analysis, based on the responses derived from Vodafone's internet ad, there is a significant relationship between favorability of brand associations and brand loyalty of Vodafone and one unit-increase in favorability of associations corresponds to 0,316-units increase in brand loyalty, while holding strength and uniqueness of associations constant (ß=0,316; t=2,650; p=0,010<0,05). However, there is no significant relationship between strength of brand associations and brand loyalty of Vodafone (t=1,374; p=0,175>0,05). In the case of Vodafone's internet ad, the results of the regression analysis indicate that brand loyalty is not significantly related to uniqueness of brand associations, while holding favorability and strength of associations constant (t=-0,661; p=0,511>0,05). % 0,223 of the variance in brand loyalty of Vodafone is explained by its brand image dimensions (R^2=0,223). According to these results, there is significant base to support the hypothesis related to the relationship between "favorability of associations" dimension of Vodafone's brand image and its brand loyalty. *(Hypothesis 3a is supported.)* However, there is no significant evidence to infer that Vodafone's brand loyalty is positively related to "uniqueness and strength of associations" dimensions of Vodafone's brand image. *(Hypothesis 3b and hypothesis 3c are not supported.)*

5.9.1.4. Effects of Vodafone's Brand Loyalty on Its Brand Equity

The effects of Vodafone's brand loyalty on its brand equity are the focus of this section. Hypotheses related to the relationship between brand loyalty and brand equity of Vodafone is as follows:

Hypothesis 4a: Brand equity is positively related to brand loyalty of Vodafone.

Table 5.114 : Regression Analysis of the Relationship Between Brand Loyalty and Brand Equity of Vodafone

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Brand Equity	(Constant)	0,488	2,925	0,005	147,050	0,000	0,716
	Brand Loyalty	0,844	12,126	0,000			

The regression model, applied to test how Vodafone's brand equity is related to its brand loyalty, is statistically significant (F=147,050; p=0,000<0,05). According to the results of the regression analysis, based on the responses derived from Vodafone's internet ad, there is a significant relationship between brand loyalty and brand equity of Vodafone and one-unit increase in brand loyalty corresponds to 0,844-units increase in brand equity (ß=0,844; t=12,126; p=0,000<0,05). 0,716 of the variance in brand equity of Vodafone is explained by brand loyalty (R^2=0,223). These results provide a significant evidence to support the hypothesis related to the effects of Vodafone's brand loyalty on its brand equity. *(Hypothesis is supported.)*

5.9.2. Testing of Control Variables

Based on the literature review, current brand knowledge is supposed to have influences on attitude toward Vodafone's internet ad, and its brand image, brand loyalty and brand equity. Moreover, predisposition towards internet advertising is supposed to effect attitude toward Vodafone's internet ad. That is why current brand knowledge and predisposition towards internet advertising are included as control variables in this research. Following sections contain analyzes related to the effects of current brand knowledge on attitude toward Vodafone's internet ad, and its brand image, brand loyalty and brand equity. Moreover analyzes about the effects of predisposition towards internet advertising on attitude toward Vodafone's internet ad are included in the following sections. Those analyzes are based on the responses derived from Vodafone's internet ad.

5.9.2.1. Effects of Current Brand Knowledge on Attitude toward Vodafone's Internet Ad

This section analyzes how current brand knowledge effects attitude toward Vodafone's internet ad. Hypotheses related to the relationship between current brand knowledge and cognitive and affective dimensions of attitude toward the internet ad of Vodafone are as below:

Hypothesis 1a: Affective dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge.

Table 5.115 : Independent T-Test of How the Means of Affective Dimension of Attitude toward Vodafone's Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Affective Dimension	Low Levels of Current Brand Knowledge	5	3,2667	1,79737	-0,384	0,703
	High Levels of Current Brand Knowledge	54	3,4969	1,23688		

The independent t-test, used to test the effects of current brand knowledge on affective dimension of attitude toward Vodafone's internet ad, indicates that there is no significant difference in group means (t=-0,384; p=0,703>0,05). According to these results, there is no significant evidence to infer that affective dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 1b: Cognitive dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge.

Table 5.116 : Independent T-Test of How the Means of Cognitive Dimension of Attitude toward Vodafone's Internet Ad Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Cognitive Dimension	Low Levels of Current Brand Knowledge	5	3,2000	2,05913	-1,165	0,249
	High Levels of Current Brand Knowledge	54	4,0037	1,42246		

According to the results of the independent t-test, conducted to analyze the effects of current brand knowledge on cognitive dimension of attitude toward Vodafone's internet ad, indicates that there is no significant difference in group means (t=-1,165; p=0,249>0,05). These results mean that there is no significant base to conclude that

cognitive dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.9.2.2. Effects of Current Brand Knowledge on Vodafone's Brand Image

This section focuses on testing the effects of current brand knowledge on Vodafone's brand image dimensions. Hypotheses related to the relationship between current brand knowledge and "favorability, uniqueness and strength of associations" dimensions of Vodafone's brand image are as following:

> **Hypothesis 2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.117 : Independent T-Test of How the Means of "Favorability of Associations" Dimension of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Favorability of Associations	Low Levels of Current Brand Knowledge	5	3,2000	1,75752	-0,846	0,401
	High Levels of Current Brand Knowledge	54	3,7099	1,2473		

As seen in the results of the independent t-test, conducted to analyze how favorability of Vodafone's associations is related to current brand knowledge, difference in group means is not statistically significant (t=-0,846; p=0,401>0,05). Based on these results, there is no significant evidence to support the hypothesis that "favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

> **Hypothesis 2b:** "Uniqueness of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.118 : Independent T-Test of How the Means of "Uniqueness of Associations" Dimension of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Uniqueness of Associations	Low Levels of Current Brand Knowledge	5	2,7000	1,56525	-0,277	0,783
	High Levels of Current Brand Knowledge	54	2,8611	1,21475		

Based on the results of the independent t-test, conducted to analyze how uniqueness of Vodafone's associations is related to current brand knowledge, there is no significant difference in group means (t=-0,277; p=0,783>0,05). These results mean that there is no significant base to infer that "uniqueness of associations" dimension of Vodafone's brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis 2c: "Strength of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.

Table 5.119 : Independent T-Test of How the MeanS of "Strength of Associations" Dimensions of Vodafone's Brand Image Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Image - Strength of Associations	Low Levels of Current Brand Knowledge	5	2,3600	0,77974	-1,155	0,253
	High Levels of Current Brand Knowledge	54	2,7111	0,63918		

The independent t-test, performed to test the relationship between strength of Vodafone's associations and current brand knowledge, there is no significant difference in group means (t=-1,155; p=0,253>0,05). According to these results, there is no significant evidence to state that "strength of associations" dimension of Vodafone's

brand image is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.9.2.3. Effects of Current Brand Knowledge on Vodafone's Brand Loyalty

The effects of current brand knowledge on Vodafone's brand loyalty are analyzed in this section. Hypotheses related to the relationship between current brand knowledge and Vodafone's brand loyalty is as following:

> **Hypothesis 3a**: Vodafone's brand loyalty is positively related to current brand knowledge.

Table 5.120 : Independent T-Test of How the Means of "Vodafone's Brand Loyalty" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Loyalty	Low Levels of Current Brand Knowledge	5	2,1333	0,73030	-0,171	0,865
	High Levels of Current Brand Knowledge	54	2,2099	0,97193		

As seen in the results of the independent t-test, performed to compare the means of Vodafone's brand loyalty of the respondents with low levels of current brand knowledge and of those with high levels of current brand knowledge, there is no significant difference in group means (t=-0,171; p=0,865>0,05). These results mean that there is no significant evidence to infer that Vodafone's brand loyalty is positively related to current brand knowledge. *(Hypothesis is not supported.)*

5.9.2.4. Effects of Current Brand Knowledge on Vodafone's Brand Equity:

The effects of current brand knowledge on Vodafone's brand equity are tested in this section. Hypotheses related to the relationship between current brand knowledge and brand equity of Vodafone is as following:

Hypothesis 4a: Vodafone's brand equity is positively related to current brand knowledge.

Table 5.121 : Independent T-Test of How the Means of "Vodafone's Brand Equity" Vary According to the Level of Current Brand Knowledge

	Group	N	Mean	Std. Deviation	t	p
Brand Equity	Low Levels of Current Brand Knowledge	5	2,3000	0,77862	-0,117	0,908
	High Levels of Current Brand Knowledge	54	2,3519	0,96338		

The results of the independent t-test, performed to compare how the means of Vodafone's brand equity vary across the respondents with low levels of current brand knowledge and those with high levels of current brand knowledge, depict that there is no significant difference in group means (t=-0,117; p=0,908>0,05). Based on this analysis, there is no significant evidence to infer that Vodafone's brand equity is positively related to current brand knowledge. *(Hypothesis is not supported.)*

Hypothesis: There is a difference in brand loyalty of Turkcell, derived from the responses based on the ads shown, for the respondents who used Turkcell before and for those who never used Turkcell.

Table 5.122 : Independent T-Test of the Means of Turkcell's Brand Loyalty of the Respondents Who Used Turkcell Before and for Those Who Never Used Turkcell

	Have you ever used Turkcell?	N	Mean	Std. Deviation	t	p
Brand Loyalty	No	16	2,271	0,791	-0,852	0,397
	Yes	55	2,485	0,909		

Independent t-test, used to test the difference in the means of brand loyalty of Turkcell for the respondents who used Turkcell before and for those who never used Turkcell, indicates that the difference in group means is not statistically significant (t=-0,852; p=0,397>0,05). These results mean that there is no significant difference in brand loyalty of Turkcell, derived from the responses based on Turkcell's ads shown, for the respondents who used Turkcell before and for those who never used Turkcell before.

Hypothesis: There is a difference in brand loyalty of Vodafone, derived from the responses that are based on Vodafone's ad shown, for the respondents who used Vodafone before and for those who never used Vodafone.

Table 5.123 : Independent T-Test of the Means of Vodafone's Brand Loyalty of the Respondents Who Used Vodafone Before and for Those Who Never Used Vodafone.

	Have you ever used Vodafone?	N	Mean	Std. Deviation	t	P
Brand Loyalty	No	105	2,457	1,081	-0,827	0,410
	Yes	69	2,589	0,952		

Independent t-test, used to test the difference in the means of brand loyalty of Vodafone for the respondents who used Vodafone before and for those who never used Vodafone, indicates that the difference in group means is not statistically significant (t=-0,827; p=0,410>0,05). These results mean that there is no significant difference in brand

loyalty of Vodafone, derived from the responses that are based on Vodafone's shown ads, for the respondents who used Vodafone before and for those who never used Vodafone before.

Hypothesis: There is a difference in current brand knowledge for the respondents who recall Turkcell as the first brand and for the respondents who recall Vodafone as the first brand.

Table 5.124 : Independent T-Test of the Means of Current Brand Knowledge of the Respondents Who Recall Turkcell as the First Brand and for Those Who Recall Vodafone as the First Brand

	Group	N	Mean	Std. Deviation	t	p
Current Brand Knowledge	Recall of Turkcell as the first brand	84	4,1270	0,6065	1,8060	0,0740
	Recall of Vodafone as the first brand	14	3,8333	0,7140		

The results of independent t-test indicate that there is no statistically significant difference in the means of current brand knowledge for the respondents who recall Turkcell as the first brand and for the respondents who recall Vodafone as the first brand (t=1,8060; p=0,0740>0,05). *(Hypothesis is not supported.)*

The results of the analyses have helped to better understand the relationship between advertising and brand equity dimensions and the contribution of advertising to build customer-based brand equity (See Tables 125-126). When it comes to compare the effects of internet advertising and print advertising on brand equity, the results of the analyses show some differences (See Tables 127-130). Because of the insufficiency of the research sample for the cases of the print and internet ads of Turkcell and the print and internet ads of Vodafone, our hypotheses were not supported (See Tables 131-138). That is why we would not be able to draw a conclusion on media-and-brand based. The

following section will provide a conclusion based on the answers of our research questions by analyzing the results of the general and media based analyses.

Table 5.125 : Hypothesis Testing of Theoretical Relationship

Effects of Brand Awareness on Attitude toward the Ad	**H1a:** Affective dimension of attitude toward the ad is positively related to brand recall.	Supported
	H1b: Cognitive dimension of attitude toward the ad is positively related to brand recall.	Supported
Effects of Attitude toward the Ad on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.	Supported
	H2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.	Supported
	H2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.	Supported
	H2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.	Supported
	H2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the ad.	Supported
	H2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the ad.	Supported
Effects of Brand Image on Brand Loyalty	**H3a:** Brand loyalty is positively related to "favorability of associations" dimension of brand image.	Supported
	H3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.	Not Supported
	H3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.	Supported
Effects of Brand Loyalty on Brand Equity	**H4a:** Brand equity is positively related to brand loyalty.	Supported

Table 5.126 : Hypothesis Testing of Control Variables

Effects of Current Brand Knowledge on Attitude toward the Ad	**H1a:** Affective dimension of attitude toward the ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward the ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to current brand knowledge.	Supported
	H2b: "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Loyalty	**H3a**. Brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Equity	**H4a:** Brand equity is positively related to current brand knowledge.	Supported
Effects of Predisposition Towards Advertising on Attitude Toward The ad	**H5a.** Affective dimension of attitude toward the ad is positively related to predisposition towards advertising.	Not Supported
	H5b. Cognitive dimension of attitude toward the ad is positively related to predisposition towards advertising.	Supported

Table 5.127 : Hypothesis Testing of Theoretical Relationship for the Case of the Print Ad

Effects of Brand Awareness on Attitude toward the Print Ad	**H1a:** Affective dimension of attitude toward the print ad is positively related to brand recall.	Supported
	H1b: Cognitive dimension of attitude toward the print ad is positively related to brand recall.	Not Supported
Effects of Attitude toward the Print Ad on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.	Supported
	H2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.	Supported
	H2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.	Supported
	H2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.	Not Supported
	H2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the print ad.	Supported
	H 2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the print ad.	Supported
Effects of Brand Image on Brand Loyalty	**H3a:** Brand loyalty is positively related to "favorability of associations" dimension of brand image.	Supported
	H3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.	Not Supported
	H3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.	Supported
Effects of Brand Loyalty on Brand Equity	**H 4a:** Brand equity is positively related to brand loyalty.	Supported

Table 5.128 : Hypothesis Testing of Control Variables for the Case of Print Ad

Effects of Current Brand Knowledge on Attitude toward the Print Ad	**H1a:** Affective dimension of attitude toward the print ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward the print ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to current brand knowledge	Supported
	H2b: "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Loyalty	**H3a**. Brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Equity:	**H 4a:** Brand equity is positively related to current brand knowledge.	Not Supported
Effects of Predisposition Towards Print Advertising on Attitude Toward The Print Ad	**H5a.** Affective dimension of attitude toward the print ad is positively related to predisposition towards print advertising	Not Supported
	H5b. Cognitive dimension of attitude toward the print ad is positively related to predisposition towards print advertising.	Not Supported

Table 5.129 : Hypothesis Testing of Theoretical Relationship for the Case of the Internet Ad

Effects of Brand Awareness on Attitude toward the Internet Ad	**H1a:** Affective dimension of attitude toward the internet ad is positively related to brand recall.	Supported
	H1b: Cognitive dimension of attitude toward the internet ad is positively related to brand recall.	Supported
Effects of Attitude toward the Internet Ad on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.	Supported
	H2b: "Favorability of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.	Supported
	H2c: "Uniqueness of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.	Supported
	H2d: "Uniqueness of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.	Supported
	H2e: "Strength of associations" dimension of brand image is positively related to affective dimension of attitude toward the internet ad.	Supported
	H2f: "Strength of associations" dimension of brand image is positively related to cognitive dimension of attitude toward the internet ad.	Not Supported
Effects of Brand Image on Brand Loyalty	**H3a:** Brand loyalty is positively related to "favorability of associations" dimension of brand image.	Supported
	H3b: Brand loyalty is positively related to "uniqueness of associations" dimension of brand image.	Not Supported
	H3c: Brand loyalty is positively related to "strength of associations" dimension of brand image.	Supported

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Table 5.130 : Hypothesis Testing of Control Variables for the Case of the Internet Ad

Effects of Current Brand Knowledge on Attitude toward the Internet Ad	**H1a:** Affective dimension of attitude toward the internet ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward the internet ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Image	**H2a:** "Favorability of associations" dimension of brand image is positively related to current brand knowledge.	Not Supported
	H2b: "Uniqueness of associations" dimension of brand image is positively related to current brand knowledge	Not Supported
	H2c: "Strength of associations" dimension of brand image is positively related to current brand knowledge	Not Supported
Effects of Current Brand Knowledge on Brand Loyalty	**H3a**. Brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Brand Equity:	**H4a:** Brand equity is positively related to current brand knowledge.	Not Supported
Effects of Predisposition Towards Internet Advertising on Attitude Toward The Internet Ad	**H5a:** Affective dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising.	Supported
	H5b: Cognitive dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising	Not Supported

Table 5.131 : Hypothesis Testing of Theoretical Relationship for the Case of Turkcell's Print Ad

Effects of Brand Awareness of Turkcell on Attitude toward Turkcell's Print Ad	**H1a:** Affective dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell.	Not Supported
	H1b: Cognitive dimension of attitude toward Turkcell's print ad is positively related to recall of Turkcell.	Not Supported
Effects of Attitude toward Turkcell's Print Ad on Turkcell's Brand Image	**H2a:** "Favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.	Supported
	H2b: "Favorability of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.	Not Supported
	H2c: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.	Supported
	H2d: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.	Not Supported
	H2e: "Strength of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's print ad.	Not Supported
	H2f: "Strength of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's print ad.	Supported
Effects of Turkcell's Brand Image on Its Brand Loyalty	**H3a:** Brand loyalty of Turkcell is positively related to "favorability of associations" dimension of Turkcell's brand image.	Not Supported
	H3b: Brand loyalty of Turkcell is positively related to "uniqueness of associations" dimension of Turkcell's brand image.	Not Supported
	H3c: Brand loyalty of Turkcell is positively related to "strength of associations" dimension of Turkcell's brand image.	Not Supported

Table 5.132 : Hypothesis Testing of Control Variables for the Case of Turkcell's Print Ad

Effects of Current Brand Knowledge on Attitude toward Turkcell's Print Ad	**H1a:** Affective dimension of attitude toward Turkcell's print ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward Turkcell's print ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Image	**H2a:** "Favorability of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Supported
	H2b: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Loyalty	**H3a**. Turkcell's brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Equity	**H4a:** Turkcell's brand equity is positively related to current brand knowledge.	Not Supported

Table 5.133 : Hypothesis Testing of Theoretical Relationship for the Case of Turkcell's Internet Ad

Effects of Brand Awareness of Turkcell on Attitude toward Turkcell's Internet Ad	**H1a:** Affective dimension of attitude toward Turkcell's internet ad is positively related recall of Turkcell.	Not Supported
	H1b: Cognitive dimension of attitude toward Turkcell's internet ad is positively related to recall of Turkcell.	Not Supported
Effects of Attitude toward Turkcell's Internet Ad on Turkcell's Brand Image	**H2a:** "Favorability of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.	Supported
	H2b: "Favorability of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.	Not Supported
	H2c: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.	Not Supported
	H2d: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.x	Supported
	H2e: "Strength of associations" dimension of Turkcell's brand image is positively related to affective dimension of attitude toward Turkcell's internet ad.	Not Supported
	H2f: "Strength of associations" dimension of Turkcell's brand image is positively related to cognitive dimension of attitude toward Turkcell's internet ad.	Not Supported
Effects of Turkcell's Brand Image on Its Brand Loyalty	**H3a:** Brand loyalty of Turkcell is positively related to "favorability of associations" dimension of Turkcell's brand image.	Not Supported
	H3b: Brand loyalty of Turkcell is positively related to "uniqueness of associations" dimension of Turkcell's brand image.	Not Supported
	H3c: Brand loyalty of Turkcell is positively related to "strength of associations" dimension of Turkcell's brand image.	Supported
Effects of Turkcell's Brand Loyalty on Its Brand Equity	**H3a:** Brand equity is positively related to brand loyalty of Turkcell.	Supported

Table 5.134 : Hypothesis Testing of Control Variables for the Case of Turkcell's Internet Ad

Effects of Current Brand Knowledge on Attitude toward Turkcell's Internet Ad	**H1a:** Affective dimension of attitude toward Turkcell's internet ad is positively related to current brand knowledge	Not Supported
	H1b: Cognitive dimension of attitude toward Turkcell's internet ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Image	**H2a:** "Favorability of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Not Supported
	H2b: "Uniqueness of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of Turkcell's brand image is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Loyalty	**H3a**: Turkcell's brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Turkcell's Brand Equity:	**H4a:** Turkcell's brand equity is positively related to current brand knowledge.	Not Supported

Table 5.135 : Hypothesis Testing of Theoretical Relationship for the Case of Vodafone's Print Ad

Effects of Brand Awareness of Vodafone on Attitude toward Vodafone's Print Ad	**H1a:** Affective dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone**.**	Not Supported
	H1b: Cognitive dimension of attitude toward Vodafone's print ad is positively related to recall of Vodafone.	Not Supported
Effects of Attitude toward Vodafone's Print Ad on Vodafone's Brand Image	**H2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's print ad.	Supported
	H2b: "Favorability of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's print ad.	Supported
	H2c: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude to the print ad of Vodafone.	Supported
	H2d: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude to the print ad of Vodafone.	Not Supported
	H2e: "Strength of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude to the print ad of Vodafone.	Supported
	H2f: "Strength of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude to the print ad of Vodafone.	Not Supported
Effects of Vodafone's Brand Image on Its Brand Loyalty	**H3a:** Brand loyalty of Vodafone is positively related to "favorability of associations" dimension of Vodafone's brand image.	Not Supported
	H3b: Brand loyalty of Vodafone is positively related to "uniqueness of associations" dimension of Vodafone's brand image.	Not Supported
	H3c: Brand loyalty of Vodafone is positively related to "strength of associations" dimension of Vodafone's brand image.	Not Supported
Effects of Vodafone's Brand Loyalty on Its Brand Equity	**H4a:** Brand equity is positively related to brand loyalty of Vodafone	Supported

Table 5.136 : Hypothesis Testing of Control Variables for the Case of Vodafone's Print Ad

Effects of Current Brand Knowledge on Attitude toward Vodafone's Print Ad	**H1a:** Affective dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward Vodafone's print ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Image	**H2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge	Not Supported
	H2b: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Loyalty	**H3a**: Vodafone's brand loyalty is positively related to current brand knowledge	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Equity	**H4a:** Vodafone's brand equity is positively related to current brand knowledge	Not Supported

Table 5.137 : Hypothesis Testing of Theoretical Relationship for the Case of Vodafone's Internet Ad

Effects of Brand Awareness of Vodafone on Attitude toward Vodafone's Internet Ad	**Hypothesis 1a:** Affective dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone.	Supported
	Hypothesis 1b: Cognitive dimension of attitude toward Vodafone's internet ad is positively related to recall of Vodafone.	Not Supported
Effects of Attitude toward Vodafone's Internet Ad on Vodafone's Brand Image	**Hypothesis 2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.	Supported
	Hypothesis 2b: "Favorability of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.	Supported
	Hypothesis 2c: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.	Supported
	Hypothesis 2d: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.	Not Supported
	Hypothesis 2e: "Strength of associations" dimension of Vodafone's brand image is positively related to affective dimension of attitude toward Vodafone's internet ad.	Supported
	Hypothesis 2f: "Strength of associations" dimension of Vodafone's brand image is positively related to cognitive dimension of attitude toward Vodafone's internet ad.	Supported
Effects of Vodafone's Brand Loyalty on Its Brand Equity	**Hypothesis 3a:** Brand loyalty of Vodafone is positively related to "favorability of associations" dimension of Vodafone's brand image.	Supported
	Hypothesis 3b: Brand loyalty of Vodafone is positively related to "uniqueness of associations" dimension of Vodafone's brand image.	Not Supported
	Hypothesis 3c: Brand loyalty of Vodafone is positively related to "strength of associations" dimension of Vodafone's brand image.	Not Supported
Effects of Vodafone's Brand Loyalty on Its Brand Equity	**Hypothesis 4a:** Brand equity is positively related to brand loyalty of Vodafone.	Supported

Table 5.138 : Hypothesis Testing of Control Variables for the Case of Vodafone's Internet Ad

Effects of Current Brand Knowledge on Attitude toward Vodafone's Internet Ad	**H1a:** Affective dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge.	Not Supported
	H1b: Cognitive dimension of attitude toward Vodafone's internet ad is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Image	**H2a:** "Favorability of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.	Not Supported
	H2b: "Uniqueness of associations" dimension of Vodafone's brand image is positively related to current brand knowledge.	Not Supported
	H2c: "Strength of associations" dimension of Vodafone's brand image is positively related to current brand knowledge	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Loyalty	**H3a**. Vodafone's brand loyalty is positively related to current brand knowledge.	Not Supported
Effects of Current Brand Knowledge on Vodafone's Brand Equity	**H4a:** Vodafone's brand equity is positively related to current brand knowledge.	Not Supported

6. CONCLUSION AND MANAGERIAL IMPLICATIONS

Based on the results of the analyses, presented in the previous section, a conclusion about the theoretical relations between advertising and the dimensions of customer-based brand equity will be drawn and managerial implications and recommendations will be presented in this section.
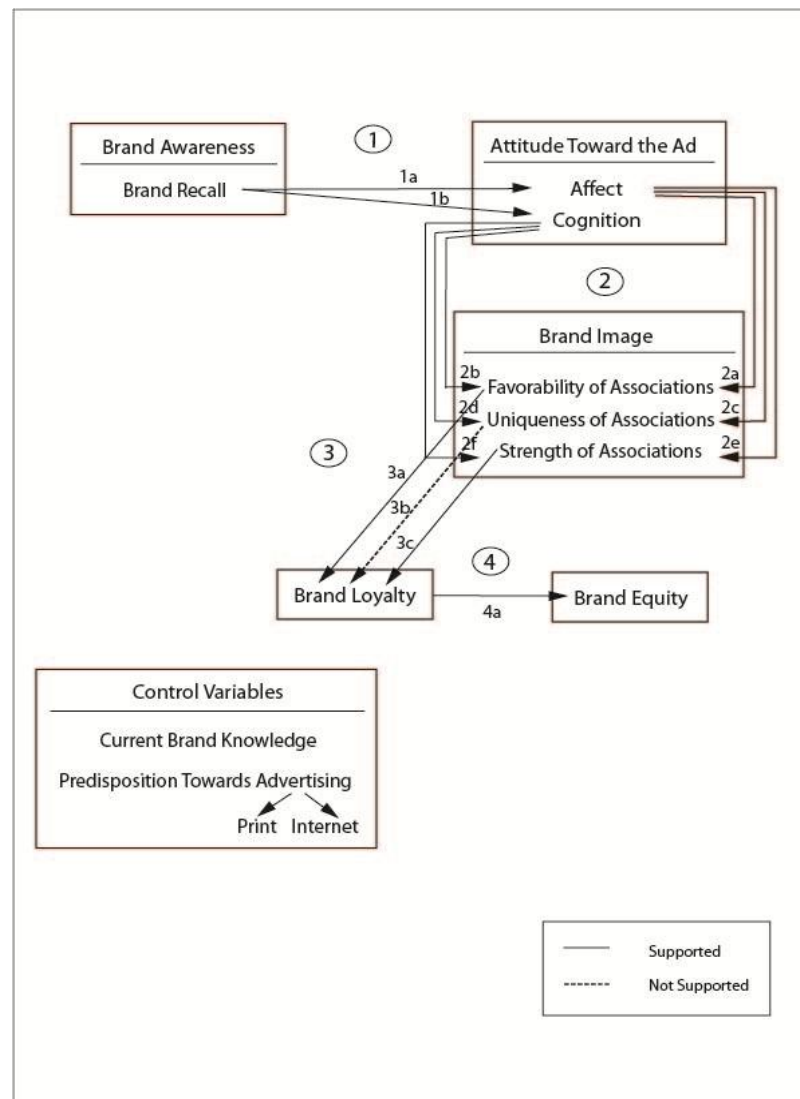

Figure 6.1 : Model of Theoretical Relations

How customer-based brand equity changes as the result of an exposure to online and offline advertising is the question that this research has aimed to answer. In the model of theoretical relations, we hypothesized how the dimensions of brand equity and advertising are interrelated (See Figure 6.1). How brand equity is built, how advertising contributes to building brand equity and whether this contribution changes according to online and offline advertising are the questions we focused on while composing the model of theoretical relations. Based on the conceptualization of Keller, brand awareness and brand image, as constituting brand knowledge, are included as the dimensions of brand equity. And brand loyalty is added to the model as another dimension of customer-based brand equity to better understand the differential effect of brand knowledge on consumer response. According to the model of theoretical relations we have hypothesized that;

- Affective and cognitive dimensions of attitude toward the ad are positively related to brand recall which means that as the recall level of a brand increases, more positive attitudes toward the ad of that brand will be generated on cognitive and affective dimensions.

- Affective and cognitive dimensions of attitude toward the ad will positively influence the dimensions of brand image; favorability, uniqueness and strength of associations. Positive attitudes toward the ad on cognitive and affective dimensions will correspond to more favorable, unique and strong associations.

- "Favorability, uniqueness and strength of associations" dimensions of brand image positively influence brand loyalty. As more favorable, strong and unique associations are generated, brand loyalty is built.

- Brand equity is positively related to brand loyalty which means greater levels of brand loyalty result in greater levels of brand equity.

In the process of measuring the contribution of advertising on building customer-based brand equity, the effects of current brand knowledge and predisposition towards advertising are controlled.

As seen in our model of theoretical relations, we did not propose a direct relationship between advertising and brand loyalty or brand equity. However, the respondents answered the questions about brand image dimensions and brand loyalty by taking the ads shown into consideration. Because brand equity is the added value given by the brand name to a product, we could not measure brand equity by making respondents to answer the questions by only taking the ad into consideration. According to our model, attitude toward the ad, influenced by brand recall, shapes brand image dimensions. And those brand image dimensions, shaped by advertising, contribute to brand loyalty. Lastly, this loyalty, influenced by brand image dimensions with the effects of advertising and measured by the questions that were answered in the light of the ads shown, in return generates brand equity. This sequence of the built of customer-based brand equity provides a significant base to support the contribution of advertising on brand equity with its direct and indirect effects on brand equity dimensions.

The results of the analyses, presented in the previous section, support the hypothesized relationship of our model. As the recall level of the brand increases, more positive attitudes toward the ad on both affective and cognitive dimensions are generated. These positive attitudes toward the ad on cognitive and affective dimensions shape brand image, by creating favorable, strong and unique brand associations. Moreover, "favorability and strength of associations" dimensions of brand image, shaped by advertising, and brand loyalty are positively related. As more favorable and strong associations are created, brand loyalty is built. To build brand equity, it is needed to shape brand image by creating favorable and strong associations. As the results indicated, attitude toward the ad positively influences "favorability and strength of associations" dimensions of brand image and this contribution is the basis of indirect contribution of advertising on brand loyalty. We proposed "uniqueness of associations" dimension of brand image would have an effect on brand loyalty, but the results did not support this hypothesis. "Favorability and strength of associations" dimensions of brand image are effective in building brand loyalty but the effects of "uniqueness of associations" on brand loyalty are not supported. It may be because of the fact that even the brands are not differentiated from each other by providing unique tangible advantages, they differentiate themselves on intangible features. The perception and the

contribution of those intangible features on brand loyalty may be included in the effects of favorability and strength of associations. Even the brands do not present unique tangible advantages, favorability and strength of their associations are effective to build brand loyalty. This loyalty in return builds brand equity. On the basis of these findings, we can state that the contribution of favorability and strength of associations on brand equity is greater than the contribution of uniqueness of brand associations. As seen in table 3.1, where research questions are presented, brand equity questions such as "If another brand is not different from Turkcell/Vodafone in any way, it seems smarter to purchase Turkcell/Vodafone" and "Even if another brand has same features as TurkcellVodafone, I would prefer to buy Turkcell/Vodafone" support this conclusion. "Favorability and strength of associations" dimensions of brand image, shaped by advertising, creates brand loyalty and this loyalty in return builds brand equity. These relations between brand equity dimensions and advertising indicate the contribution of advertising to build brand equity.

When the effects of current brand knowledge on attitude toward the ad and on the dimensions of brand equity are examined, the results of the analyses indicate that "favorability of associations" dimension of brand image and brand equity are influenced by current brand knowledge. The analyses, related to the effects of predisposition toward advertising in general on attitude toward the ad, concluded that cognitive dimension of attitude toward the ad is positively related to predisposition towards advertising. Positive attitudes toward advertising correspond to more positive attitudes to the ad on cognitive dimension. These points should be considered while evaluating the effects of advertising on these dimensions.

After understanding the contribution of advertising on brand equity, there is another question that this research needs to answer: How does this contribution change as the result of an exposure to online and offline advertising? We hypothesized that the print ad as a form of offline advertising and the internet ad as a form of online advertising will have different effects on building brand equity because of their different characteristics.

Based on the results of the tests, conducted for the case of the print ad, the relationship between cognitive dimension of attitude toward the print ad and brand recall is not supported (See Figure 6.2). This result is the basis to state that cognitive evaluations of the print ad are not dependent to the level of brand recall. Recalling the brand as the first brand does not result in more positive attitudes toward the ad on cognitive dimension. However, the level of brand recall influences affection about the print ad. Recalling the brand as the first brand corresponds to more positive attitudes toward the print ad on affective dimension. When the effects of the print ad on brand equity dimensions are analyzed, it is seen that favorability, uniqueness and strength of brand associations are related to affective dimension of attitude toward the print ad. It means that feelings that the print ad created are effective to create favorable, unique and strong associations. When positive attitudes toward the print ad created, more favorable, unique and strong associations are generated. When the print ad is evaluated on cognitive dimension, it is seen that cognitive dimension is effective in creating favorable and strong associations, but not unique associations. Why the effects of affective and cognitive dimensions are different in creating unique associations may be explained by examining the print ad and the respondents might not be able to differentiate the brand from others with the thoughts about the brand aroused from the print ad. But the feelings, the ad evoked, which are the basis of the affective dimension of attitude toward the ad, might helped respondents to differentiate the brand from others by making them think that the brand has unique brand associations. When the effects of brand image dimensions on brand loyalty are analyzed, it is seen that brand loyalty is positively related to favorability and strength of associations, but not related to uniqueness of associations. Based on these results, we can state that consumers can be loyal to a brand even they do not think the brand has unique features. This situation has been the same for the general analyses, which we did not distinguish as print-based and internet-based. Higher levels of "favorability and strength of associations" dimensions of brand image, evoked by cognitive and affective dimensions of the print ad, imply higher levels of brand loyalty. The effects of the print ad on some dimensions of brand equity, such as "uniqueness of associations" dimensions of brand image, are not supported but the results conclude that uniqueness of associations is not effective in building brand loyalty which positively influences brand equity. So these results of the analyses provide a significant base to

infer that this process of building customer-based brand equity is positively influenced by affective and cognitive dimensions of attitude toward the print ad with its direct and indirect effects on the dimensions.
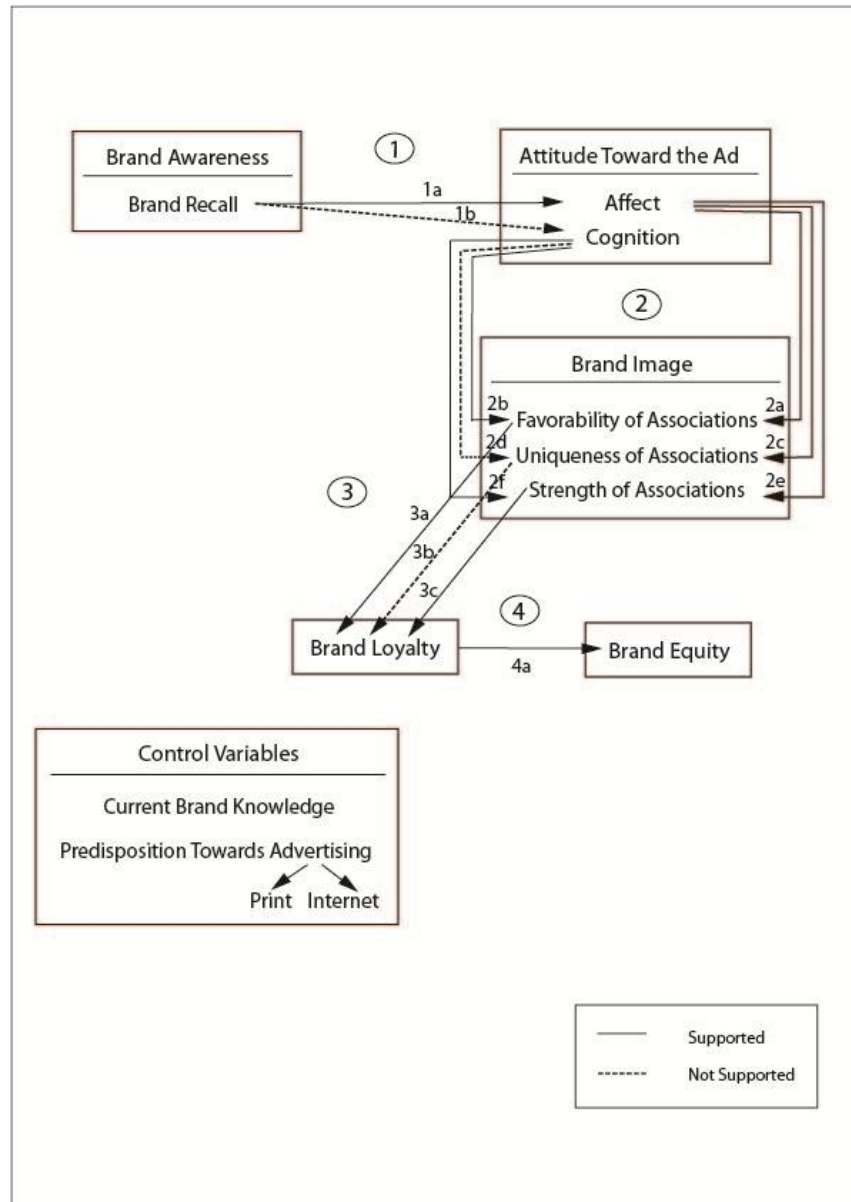

Figure 6.2 : Model of Theoretical Relations for the Case of Print Ad

When the analyses are conducted to see the effects of current brand knowledge and predisposition towards print advertising, it is seen that predisposition towards print advertising have no effects on affective and cognitive dimensions of attitude toward the

print ad. However, current brand knowledge influences "favorability of associations" dimension of brand image. This needs to be taken into consideration while evaluating the effects of print advertising on the dimensions of brand equity.

When the results of the internet-based analyses are examined, as being different from the results of the print-based analyses, it is seen that our hypotheses related to the relationship between brand recall and cognitive and affective dimensions of attitude toward the ad are supported in the case of the internet ad (See Figure 6.3). Cognitive dimension of attitude toward the print ad is not related to brand recall however, recalling the brand as the first brand leads to more positive attitude toward the internet ad on both cognitive and affective dimensions. As such in the case of the print ad, affective dimension of attitude toward the internet ad positively influences favorability, uniqueness and strength of associations. If positive feelings are evoked by the internet ad, more favorable, unique and strong brand associations are generated. When it comes to cognitive dimension of attitude toward the internet ad, the thoughts, aroused from the internet ad, positively influence the creation of favorable and unique associations but do not influence the creation of strong associations. This is another point of differentiation of the print and the internet ad. Positive attitudes toward the print ad on cognitive dimension lead to stronger brand associations but those positive thoughts about the ad do not have an influence on uniqueness of associations. For the case of the internet ad, positive thoughts about the internet ad are effective in generating unique associations but not effective in generating strong associations. For both cases, brand loyalty is positively related to strength of associations but not positively related to uniqueness of associations. On the basis of this difference in the effects of the internet and the print ad, we can infer that the print ad has an influence in building brand loyalty with both cognitive and affective dimensions. However, when the effects of the internet ad on brand loyalty are examined, because brand loyalty is positively related to favorability and strength of associations it can be stated that affective dimension of the internet ad may be more effective to build brand loyalty because of the fact that affective dimension is more effective in creating favorable and strong brand associations. Greater levels of loyalty imply greater levels of brand equity. Based on these results, we can

conclude that the contribution of internet advertising on brand equity may be greater on affective dimension.
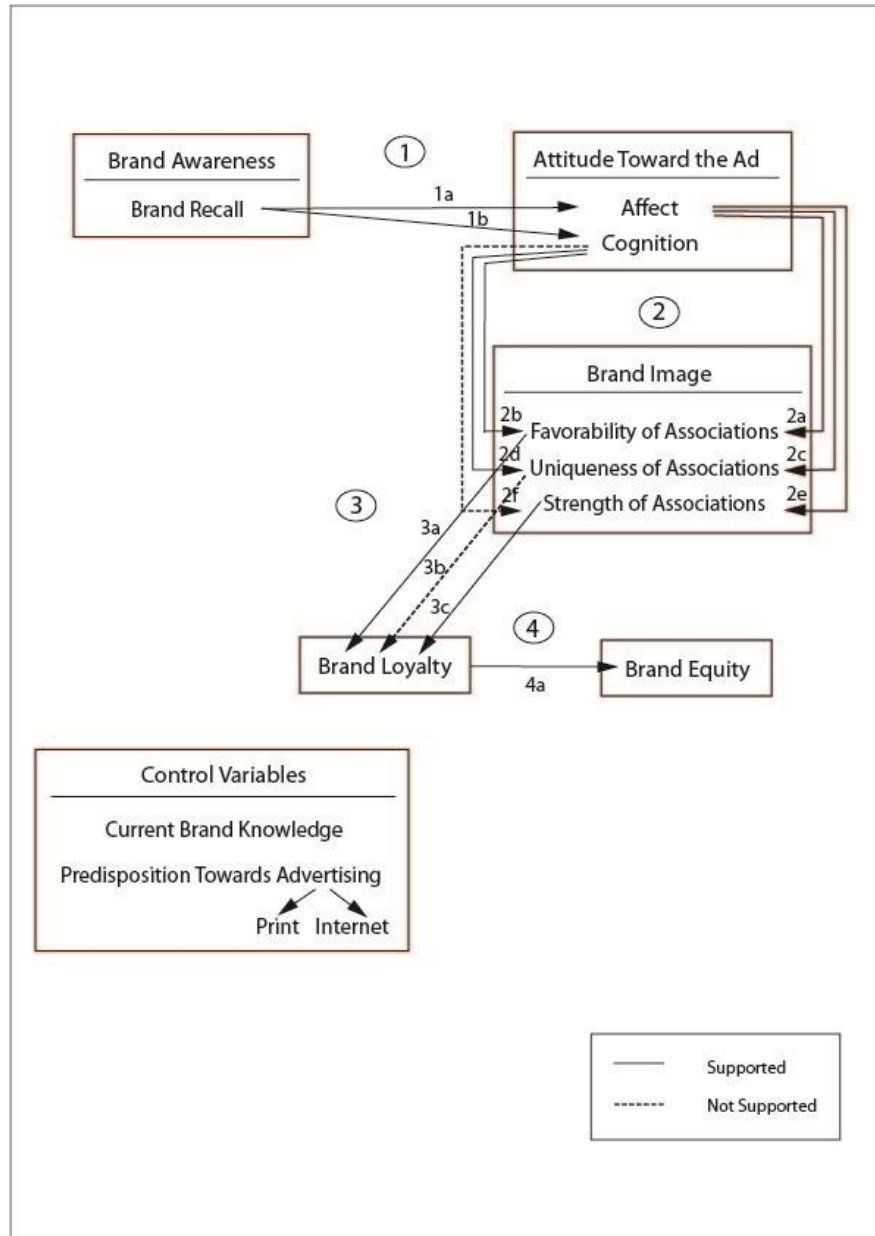

Figure 6.3 : Model of Theoretical Relations for the Case of Internet Ad

For the case of the internet ad, the effects of control variables on the process of building brand equity have been analyzed and the results indicate that brand equity dimensions and attitude toward the ad are not influenced by current brand knowledge. This means

that the dimensions of brand equity are only shaped by advertising. However, the interesting result is that brand equity which cannot be thought apart from prior brand knowledge is not influenced by current brand knowledge according to the results of these analyses. When the effects of predisposition towards internet advertising are controlled, the results indicate that affective dimension of attitude toward the ad is positively related to predisposition towards internet advertising. This means that consumers who have positive attitudes toward internet advertising will have more positive feelings about the brands and these positive feelings then result in favorable and strong brand associations which are the basis of brand loyalty. And greater levels of brand loyalty imply greater levels of brand equity. That is why we should consider the effects of predisposition towards internet advertising on attitude toward the ad, while stating that contribution of internet advertising on brand equity may be greater on affective dimension.

The purpose of this research was to understand the relationship between advertising and brand equity and whether this relationship changes as the result of an exposure to online and offline advertising. When it comes to compare the effects of internet advertising and print advertising on brand equity, the results of the analyses show some differences (See Table 6.1).

Table 6.1: The Comparison of the Print and Internet Ad

PRINT AD	INTERNET AD
"Uniqueness of associations" dimension of brand image **is not positively related** to cognitive dimension of attitude toward the print ad.	"Uniqueness of associations" dimension of brand image **is positively related** to cognitive dimension of attitude toward the internet ad.
"Strength of associations" dimension of brand image **is positively related** to cognitive dimension of attitude toward the print ad.	"Strength of associations" dimension of brand image **is not positively related** to cognitive dimension of attitude toward the internet ad.
Cognitive dimension of attitude toward the print ad **is not positively related** to brand recall.	Cognitive dimension of attitude toward the internet ad **is positively related** to brand recall.
Affective dimension of attitude toward the print ad **is not positively related** to predisposition towards print advertising.	Affective dimension of attitude toward the internet ad **is positively related t**o predisposition towards internet advertising.

The effects of cognitive dimension of attitude toward the print ad and the internet ad are different. In the case of the print ad, the relationship between uniqueness of associations and cognitive dimension of attitude toward the ad is not supported. And in the case of the internet ad, the relation of cognitive dimension of attitude toward the internet ad with strength of associations is not supported. For the both cases, uniqueness of associations is not effective but strength of associations is effective in building brand loyalty which will then result in brand equity. On the basis of this difference in the effects of the internet and the print ad, the contribution of the print ad is greater than the contribution of the internet ad on brand loyalty and brand equity on cognitive dimension. On affective dimension, both the internet and the print ad are effective in building brand equity with their impacts on the dimensions of brand equity. Based on the tests, conducted to see the differences in predisposition towards internet and print

advertising, it is seen that predisposition towards print advertising is more positive than internet advertising. However the effects of predisposition towards print advertising on attitude toward the print ad are not supported, the effects of predisposition towards internet advertising on affective dimension of attitude toward the internet ad are supported. These mean that the effects of the print ad is not greater than the effects of the internet ad on affective dimension, even the respondents have more positive attitudes towards print advertising. If the majority of the research sample had more positive attitudes toward internet advertising, the results might be different, when thinking that affective dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising. In such situation effectiveness of the internet ad might be different. The last difference in the print ad and the internet ad, is that cognitive dimension of attitude toward the print ad is not dependent to brand recall performance. However, brand recall level has an impact on the cognitive dimension of attitude toward the internet ad.

Based on the answers of our research questions, in the next section we will provide managerial implications.

6.1 MANAGERIAL IMPLICATIONS

According to the results of the present research, the effects of advertising on creating favorable, strong and unique associations are obvious, but the results show that the effects of "favorability and strength of associations" dimensions of brand image are greater than "uniqueness of associations" on brand loyalty which generates brand equity. Because consumers can be loyal to a brand even they do not think that the brand has unique tangible features, marketers should focus on creating ads that will generate favorable and strong associations to build brand equity.

When the differences between the internet ad and the print ad are considered, it can be stated that an ad which contains heavily cognitive elements can be more effective as a form of print advertising because of the fact that the effects of print advertising on cognitive dimension is greater than the effects of internet advertising.

If an ad, containing affective elements, tries to communicate with a target group who has more positive attitudes towards internet advertising rather than print advertising, may be more effective as a form of internet advertising because of the fact that affective dimension of attitude toward the internet ad is positively related to predisposition towards internet advertising. The effects of positive attitudes towards internet advertising on affective dimension of the internet ad will increase the effectiveness of advertising.

If a new brand wants to reach its consumers via an ad which focuses on mostly cognitive elements, can increase the effectiveness of advertising by converying the ad as a form of print advertising because brand recall level does not have an impact on cognitive evaluation of the print ad. This means that the ad will be evaluated objectively as being independent from the level of brand recall.

This research provides a significant base to point out the contribution of advertising on customer-based brand equity, with its direct effects on brand image dimensions and indirect effects on brand loyalty and brand equity and how this contribution differs according to the media that convey the ad.

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