Competitive Aspects of Brand Value for Mobile Phone Industry Created by Brand Equity

By

JARUSIN PORNPAKDEETAWANUGOON

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

Master of Business Administration

Graduate School of Business
Assumption University
Bangkok Thailand

February 2002

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Examination Committee :

1.	Dr. Sirion Chaipoopirutana	(Advisor)	.....
2.	Dr. Tang Zhimin	(Member)	.....
3.	Dr. Ishwar C. Gupta	(Member)	.....
4.	Assoc. Prof. Wirat Sanguanwongwan	(MUA Representative)	.....

Examined on : 7 February 2002
Approved for Graduation on :

Graduate School of Business
Assumption University
Bangkok Thailand
February 2002

Abstract

A brand is a distinguishing name and/or symbol (such as a logo, trademark, or package design) intended to identify the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors. A brand thus signals to the customer, the sources of product, and protects both the customer and the producer from competitors who would attempt to provide products that appear to be identical. Concept of brand equity (Aaker, 1991) is a key successful to create both brand-building and brand value.

The research objective explores the creating brand value by formulating brand equity as a strategic weapon for creating value of a brand and adding up the marketing mix elements (distribution intensity, price, store image, and advertising) related to the dimensions of brand equity, that is, perceived quality, brand loyalty, brand awareness/associations. Finally, this research also focuses on demographic which consist of gender, marital status, age, education levels, occupation, and income levels. The data analysis presentation and interpretation based on the data of 400 samples collected from respondents who are NOKIA's users in Bangkok area. The correlation analysis is used for testing relationship among brand value and its elements, brand equity and its dimensions, and marketing mix elements.

For conclusions, all of sixteen hypotheses testing in this research was rejected H0. These mean that there are relationships between two variables. Although some hypotheses shown the weak relationship. Brand awareness/associations had a few effects to price premium. Perceived quality and brand loyalty are weak related to create brand extensions. Advertising ranked number one compared among marketing mix elements. A successful advertising campaign and distribution intensity of NOKIA enhances strongly brand awareness/associations. Finally, brand equity is strongly

related to brand value. Therefore, two sub-elements (price premium and brand extensions) of brand value are significant benefit of a brand to generate financial value. In summary, this study shows the importance and roles of various marketing mix elements in building strong brand equity. To enhance the strength of a brand, marketers must invest in advertising, distribute through retail stores with good images, increases distribution intensity. As for price, high brand equity may allow a company to charge a higher price because customers are willing to pay premium prices. Finally, high brand equity implies that customers have a lot of positive a strong associations related to the brand, perceived the brand is of high quality, and are loyal to the brand. These are the positive potential benefit that the firm will gain economic value (brand value) in the future

Acknowledgement

The successful completion of this thesis was not possible all alone but instead it was teamwork. Hence, I would like to grab this opportunity to express my gratitude to all those people and institution that have in some or the other way involved themselves in assisting me in the completion of this thesis.

First of all, I would like to thank my advisor, Dr. Sirion Chaipoopirutana, for her deep indebtedness. Without her support this thesis would never have completed. I would also like to thank my committee members, Dr. Tang Zhimin and Prof. Dr. Ishwar Chandra Gupta for their support and guidance on the thesis proposal preview.

Secondly, I would like to thank my family for their great pleasure and inspiration throughout the achievement of this thesis. Finally, I would like to thank my friends for their utmost enthusiastic and support me on this thesis.

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Chapter I

Generalities of the Study

1.1 INTRODUCTION

A brand is a distinguishing name and/or symbol (such as a logo, trademark, or package design) intended to identify the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors. A brand thus signals to the customer, the sources of product, and protects both the customer and the producer from competitors who would attempt to provide products that appear to be identical. Although brands have long had a role in commerce, it was not until the twentieth century that branding and brand associations became so central to competitors. In fact, a distriguishing characteristic of modern marketing has its focus upon the creation of differentiated brands. Unique brand associations have been established using product attributes, names, packages, distribution strategies, and advertising. The idea has been to move beyond commodities to branded products-to reduce the primary of price upon the purchase decision, and accentuate the bases of differentiation.

One such intangible asset is the equity represented by a brand name. For many businesses the brand name and what it represents are its most important assets-the basis of competitive advantage and of the future earning streams. The value of brand-building activities on future performance is not easy to demonstrate. The challenge is to understand better the links between brand assets and future performance, so that brand-building activities can be justified. In fact, that many brands fail to reach their potential or maintain their equity is neither surprising nor puzzling when the various pressure against building strong brand are examined. What are the assets that underlie brand equity? How do they relate to future performance?

From Aaker's (1991) proposal, he defined the concept of brand equity and its dimensions including perceived quality, brand loyalty, brand awareness, brand associations, and other proprietary brand assets. The brand equity can create value for both the customer and the firm. Providing value to the customer, brand equity assets generally add or subtract value for customers. They can help them interpret, process and store huge quantities of information about products and brands. They can also affect customers' confidence in the purchase decision (due to either past-use experience or familiarity with the brand and its characteristics). Potentially more important is the fact that both perceived quality and brand associations can enhance customers' satisfaction with the use experience. Providing value to the firm, as part of its role in adding value for the customer, brand equity has the potential to add value for the firm by generating marginal cash flow in many ways. It can enhance programs to attract new customers or recapture old ones. Enhanced customer loyalty is especially important in buying time to respond when competitors innovate and obtain product advantages. It will usually allow higher margins by permitting both premium pricing and reduced reliance upon promotions. Finally, brand equity can provide a platform for growth via brand extensions.

This study explores the creating brand value by formulating brand equity. The researcher sets brand equity as a strategic weapon for creating value of a brand by investigating among their elements. Then, the researcher adds up the marketing mix elements (distribution intensity, price, store image, and advertising) related to the dimensions of brand equity, that is, perceived quality, brand loyalty, brand awareness/associations.

1.2 RESEARCH OBJECTIVES

The main purpose of the researcher's study is to investigate brand value created by brand equity that is influenced by selected marketing mix elements. Therefore, the researcher assumes the research objectives as following.

a) Developing the framework of brand equity and brand value.

b) Identifying relationship between brand value and brand equity.

c) Examining relationship between the elements of brand value and dimensions of brand equity.

d) Identifying the performance of selected marketing mix elements on the dimensions of brand equity.

1.3 STATEMENT OF THE PROBLEM

The researcher examines sixteen problems for supporting research objectives. The researcher classifies two groups. The first group focuses on the relationship between brand value and brand equity and the relationship between the elements of brand value and the dimensions of brand equity. Another group investigates on the influencing selected marketing mix elements on the dimensions of brand equity. These statement of the problem are as following.

Group I:

The Relationship between Brand Value and Brand Equity

1) Is there a relationship between brand value and brand equity?

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

2) Is there a relationship between perceived quality and price premium?

3) Is there a relationship between perceived quality and brand extensions?

4) Is there a relationship between brand loyalty and price premium?

5) Is there a relationship between brand loyalty and brand extensions?

6) Is there a relationship between brand awareness/associations and price premium?

7) Is there a relationship between brand awareness/associations and brand extensions?

Group II:

The Relationship between Marketing Mix Elements and Dimensions of Brand Equity

8) Is there a relationship between distribution intensity and perceived quality?

9) Is there a relationship between distribution intensity and brand loyalty?

10) Is there a relationship between distribution intensity and brand awareness /associations?

11) Is there a relationship between price and perceived quality?

12) Is there a relationship store image and perceived quality?

13) Is there a relationship between store image and brand awareness/associations?

14) Is there a relationship between advertising and perceived quality?

15) Is there a relationship between advertising and brand loyalty?

16) Is there a relationship between advertising and brand awareness/associations?

1.4 Scope Of Research

The target population of this study is users who have use experience in Bangkok area to assess the customers' perception through the brand and the product category of this research is only mobile phone industry. The researcher chooses NOKIA brand for measuring relationship between brand value and brand equity, and influencing marketing mix elements through dimensions of brand equity. NOKIA is a popular mobile phone and a market leader by gained 44.7 percent of market share in Thailand, whereas SIEMENS is a major competitor by covered 18.20 percent from total market.

1.5 LIMITATION OF RESEARCH

For the limitation of research, firstly, the researcher uses perceptual, not actual, measures of marketing mix elements and brand value. It would be meaningful from a managerial perspective to use hard marketing data and value of brand from secondary sources, such as scanner data or data from the firms that are marketing the focal brands. Therefore, the researcher uses a field survey method to test the research hypotheses. Hence, the researcher calls on the future research to examine the effect of actual marketing variables on brand equity. Secondly, the researcher's study examines the effect of individual brand value, dimensions of brand equity and marketing mix elements variables and does not investigate the interaction among each. Future research should explore the interaction among them. Finally, a major conceptual limitation is that the researcher's model tests only a few marketing efforts including distribution intensity, price, store image, and advertising. The further study to examine more marketing mix elements, such as, price deals and sponsorship.

1.6 SIGNIFICANT OF THE STUDY

The result of research, firstly, as a perceptual tool helps brand or product managers to measure the performance of marketing mix programs provided value to firm and customers. Secondly, knowing how certain marketing activities contribute to or hurt brand equity will enable marketing managers to develop effective marketing plan. Managers need to promote brand-building activities and decrease or avoid brand-hurting activities. Thirdly, as an effective guideline for brand and product managers measures brand equity and its dimensions of the firm. The various dimensions of brand equity are not equally important in all market. Finally, brand and product managers get benefits from this research using customers' perception to evaluate the potential benefits of brand value.

1.7 DEFINITION OF TERMS

Advertising: is the means by which the firms attempt to inform, persuade, and remind customers.

Brand Associations: can be anything that connects the customer to the brand. It can include user imagery, product attributes, use situations, brand personality, organizational associations, and symbols.

Brand Awareness: is an often undervalued assets; however, awareness has been shown to affect perceptions and even taste. People like the familiar and are prepared to ascribe all sorts of good attitudes to items that are familiar to them.

Brand Equity: was defined as the brand assets (or liabilities) linked to brand name and symbol that add to (or subtract from) a product or service. These assets can be grouped in four dimensions; perceived quality, brand loyalty, brand awareness, and brand associations. These four dimensions guide brand development, management, and measurement.

Brand Extensions: The use of brand name established in one product class to enter another product class, have been the core of strategic growth for a variety of firms.

Brand Loyalty: The extent to which consumer shift among brands; specially, it is the inverse of the amount of shifting.

Brand Value: Brands are seen to be of economic value to their owners through their ability to differentiate products and services from competitive offers.

Consumer Brand equity: is the underlying customer- and market-related components of brand equity.

Distribution Intensity: is products placed in a large number of stores to cover the market.

Financial Brand Equity: is the financial value of the brand for the company.

Marketing Mix Elements: is the set of marketing tools that the firm uses to pursue its marketing objectives in the target market. McCarthy classified these tools into four broad groups that he called the four Ps of marketing: product, price, place, and promotion.

Perceived Quality: is a special type of association, partly because it influences brand associations in many contexts and partly because it has been empirically shown to affect profitability (as measured by both ROI and stock return).

Price: is the one revenue-generating element of the marketing mix.

Price Premium: producing a high-quality product and charging the highest price.

Store image: is defined as "set of interdependent organizations involved in the process of making a product or service available for use or consumption.

Chapter II

Review of Related Literature and Studies

This chapter explores the theories of dependent and independent variables to supporting research objectives. The dependent variables are brand value including price premium, and brand extensions. The independent variables are brand equity (perceived quality, brand loyalty, and brand awareness/associations) and marketing mix elements (distribution intensity, price, store image, and advertising).

2.1 Brand Value

There is a natural desire to obtain an estimate of the financial value of a brand. Knowing the brand's value help to calibrate brand-building investments, and changes in value can assist in the evaluation of marketing programs. Brand value mostly consists of price premium, and brand extensions.

Price Premium

Aaker (1996) proposed, price premium is the producing a high-quality product and charging the highest price. A basic indicator of loyalty is the amount a customer will pay for the brand in comparison with another brand offering similar or fewer benefits. This is called the price premium associated with the loyalty of brand, and it may be high or low and positive or negative depending on the two brands involved in the comparison. In measuring price premium, or any brand equity measure, it is useful to segment the market by loyalty. For example, the market might be divided into loyal buyers of the reference brand, customers who are brand switchers, and non-customers. Each group, of course, will have a very different perspective on the equity of the reference brand. Aggregating over loyalty groups will provide a less sensitive measurement and will cloud the strategic interpretation of the brand equity profile.

The price premium measure is defined with respect to a competitor or a set competitors, who must be clearly specified. A set of competitors is usually preferred for measurement, because the brand equity of a single competitor can decline while the equity of other competitors remains stable. In such a case, using only the declining competitor as a point of comparison would give an erroneous perspective of the brand's health.

Price premium is a single measure of brand equity available, because it directly captures the loyalty of customers in a most relevant way. If they are loyal, they should logically be willing to pay a price premium; if they are not willing to pay more, the loyalty level is shallow.

Howard (1994) developed a perceived quality advantage gives the option of charging a premium price. The information that leads to perceptions of perceived quality affects the evaluation of price level for specific brands. It can increase profits or provide resources to reinvest in, for example, brand-building activities. If, instead, the brand is priced competitively, it should yield a larger customer base, higher brand loyalty, and more effective marketing mix programs.

A direct positive path is proposed between perceived price premium and prepurchase price fairness (Hubbard 1998; Rao and Bergen 1992; Rao and Monroe 1996). Rao and Monroe define price premium as the difference between a high price and the perfectly competitive price for high-quality output.

Brand Extensions

Aaker (1991) defined the use of brand name established in one product class to enter another product class, have been the core of strategic growth for a variety of firms. Brand extensions are a natural strategy for the firm looking to grow by exploiting its assets. The most real and marketable assets of many firms are the brand names that they have developed. Thus, one strategic growth option is to exploit that

assets by using it to penetrate new product categories or to license it to others for use therein. Another option is to acquire a firm with a brand name, which can provide a platform for future growth via brand extensions.

Smith and Park (1992) indicate that a brand extension strategy offers many advantages. A recent study found that brand extensions capture greater market share and realize greater advertising efficiency than individual brands. A well-regarded brand name helps the company enter new product categories more easily and gives a new product instant recognition and faster acceptance. Brand extensions also save the high advertising cost usually required to familiarize consumers with a new brand name.

At the same time, a brand extension strategy involves some risk. If an extension brand fails, it may harm customer attitudes toward the other products carrying the same brand name. Further, a brand name may not be appropriate to a particular new product, even if it is well made and. And a brand name may lose its special positioning in the consumer's mind through overuse. Brand dilution occurs when consumers no longer associate a brand with a specific product or even highly similar products. As Smith and Park discussions, many of the benefits that accrue to brand extensions result from the effect of the strategy on consumer information processing and decision making.

2.2 BRAND EQUITY

Brand Equity (Aaker, 2000: p.17) was defined as the brand assets (or liabilities) linked to brand name and symbol that add to (or subtract from) a product or service. These assets can be grouped in to four dimensions: perceived quality, brand loyalty brand awareness, and brand associations. These four dimensions are useful guide of brand development, management, and measurement.

Perceived Quality

Perceived quality (Aaker, 1991) is a special type of association, partly because it influences brand associations in many contexts and partly because it has been empirically shown to affect profitability (as measured by both ROI and stock return). That perceived quality should provide a reason for the customer to buy is not at all surprising. However, since perceived quality is linked to brand evaluation and purchase, it should, first, be pursued as a brand objective.

Second, perceived quality also leads to the brand's differentiation on perceived quality dimensions. That is a differentiated brand offers the customer a special benefit and a basis for brand preference.

Third, a perceived quality advantage gives the option of charging a premium price. The information that leads to perceptions of perceived quality affects the evaluation of price level for specific brands. It can increase profits or provide resources to reinvest in, for example, brand-building activities. If, instead, the brand is priced competitively, it should yield a larger customer base, higher brand loyalty, and more effective marketing mix programs.

Fourth, perceived quality is relevant to retailers and other channel members and so helps in the distribution of the brand. If the brand is priced lower, it will help the channel provide value.

A fifth advantage of perceived quality is that it permits the development of brand extensions; there is clear evidence that perceived quality in a brand supports brand extensions.

Zeithaml (1998; p.3) defines perceived quality as the consumer's (subjective) judgment about a product's overall excellence or superiority". Personal product experiences, unique needs, and consumption situations may influence the consumer's subjective judgement of quality. High perceived quality means that, through the long-

term experience related to the brand, consumers recognize the differentiation and superiority of the brand.

Brand loyalty

Brand loyalty (Aaker, 1991) is often the central feature of brand equity; it greatly reduces competitive action in which the costs outweigh the rewards. It is different from the other three dimensions of brand equity because it is tied more closely to use-experience. It is not possible to transfer it to another name or symbol except by spending substantial funds and foregoing significant sales and profits.

The first benefit of brand loyalty is reduced marketing costs. It is less expensive to retain a customer than to get a new customer, and loyal customers as an entry barrier to competitors. Degree of brand loyalty to existing products can be vital to market entry decisions.

The second benefit of brand loyalty is trade leverage, which is defined as the willingness to carry a product and to support it. It will get the company space in a retail store. Trade leverage is particularly important when a company is introducing brand extensions. This possibility is especially significant to a company considering a major market entry, in that it knows it has a better opportunity for a line extension in the growth or mature stages.

The third advantage of brand loyalty is in attracting new customers, especially when the purchase is somewhat risky; however, this requires an explicit program. Loyal customers provide an image of the brand as an accepted, successful product which will be around and will be able to afford service back-up and product improvements. This can be a powerful attraction to new customers, and will generate brand awareness through word of mouth, which will encourage others to consider the brand.

Finally, brand loyalty creates a company time to respond to competitive threats. Loyal satisfied customers will not be looking for new products and thus may not learn of an advancement. Further, they will have little incentive to change even if exposed to the new product. With a high level of brand loyalty, a company can allow itself the luxury of pursuing a less risky follower strategy.

Oliver (1997: p.392) defines brand loyalty as "a deeply held commitment to repurchase or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior". Loyal consumers show more favorable responses to a brand than non-loyal or switching consumers do (Grover and Srinivasan, 1992). Therefore, brand equity will increase.

Brand Awareness

Brand awareness (Aaker, 1991) is an often undervalued assets; however, awareness has been shown to affect perceptions and even taste. People like the familiar and are prepared to ascribe all sorts of good attitudes to items that are familiar to them.

The first step in building brand awareness is to have a strong brand name to which other associations with the brand can be attached in the customer's mind.

The second step is to establish familiarity, with leads to liking the brand. The more familiar a brand is to customers, the more they are inclined to like it.

Third, name awareness, can serve as a signal of the brand's presence, commitment, and substance. Even thought the customers do not know much about the brand, the familiar name is reassuring to them.

Fourth, a brand name that is well known to customers can be the basis for getting into the customer's evoked set. This is the set of brands that customer will consider buying, as discussed throughout the brand.

Brand awareness with strong associations forms a specific brand image. Aaker (1991: p.109) defines brand associations as "anything linked in memory to a brand" and brand image as "a set of (brand) associations usually in some meaningful way".

Brand Associations

Brand associations (Aaker, 1991) are anything that is linked in memory directly or indirectly to the brand. These associations go over and beyond those that represent perceived quality to the buyer. There are five ways that these associations provide value to the customer and try to relate them to other elements of brand equity.

First, as an overview tool, means-end analysis provides three levels of customer thinking. The bottom level of abstraction is "Attributes," which refers to the "brand associations" that customers often use for brand identification. The next level up the ladder of abstraction in the customers' thinking is "Consequences". These have to do with the attitude level of thinking, represented by "Perceived Quality" in brand equity terms. Finally, the third level comprises the customers "values", which it will recall are their major source of motivation and the bases of their attitude benefits and how strong those benefits are. This is, of course, the foundation of buying, of choosing among product categories and brands.

Second, implicit in the above process is the customer building a product hierarchy, which controls four aspects of the customers' buying process. It controls the customers' search, their attention, their memory, and finally their choice by bringing together the brands.

Third, the customers have a goal hierarchy that guides them in making their choice.

Finally, the customers have a sense of perceived risk represented as the inverse of their confidence in the purchase. This is a very important part of brand associations, in addition to perceived quality.

From the foregoing discussion, it is clear that there is reason to believe that brand equity captures much of the reality of customer buying that has been revealed by the customer decision making.

First, these associations can help summarize a set of facts that would be expensive to communicate and difficult for the customer to process. In addition, they can help in the recall of information during decision making.

Second, these associations can help differentiate a brand from competitors. For product categories such as wine, perfumes, and clothes, among which most customers cannot make brand distinctions, the brand name can play a critical role in separating one brand from another.

Third, these associations can involve customer benefits that provide a specific reason to buy and use the brand. They also can build credibility and confidence in the brand, or provide an up scale image.

Fourth, these associations can create positive attitudes and feelings that are transferred to the brand.

Fifth, and very important for marker entry planning, is that the associations can provide a basis for a franchise extension from the existing brand. This possibility should be a serious consideration when planning the entry of the primary brand.

Brand associations are complicated and connected to one another, and consist of multiple ideas, episodes, instance, and facts that establish a solid network of brand knowledge. The associations are stronger when they are based on many experiences of exposures to communications, rather than a few (Aaker1991: Alba and Hutchinson 1987).

2.3 MARKETING MIX ELEMENTS

Marketing mix elements (Kotler 2000: p.15-16) is the set of marketing tools that the firm uses to pursue its marketing objectives in the target market. McCarthy classified these tools into four broad groups that he called the four Ps of marketing: product, price, place, and promotion.

Distribution Intensity

Distribution is intensive when products are placed in a large number of stores to cover the market. To enhance a product's image and get substantial retailer support, firms tend to distribute exclusively or selectively rather than intensively. It has been argued that certain types of distribution fit certain types of products. Consumers will be more satisfied, however, when a product is available in a greater number of stores because they offered the product where and when they want it (Ferris, Oliver, and Kluyver, 1989; Smith, 1992). Intensive distribution reduces the time consumers must spend searching the store and traveling to and from the stores, provides convenience in purchasing, and make it easier to get services related to the product.

Price

Price is the one revenue-generating element of the marketing mix, and price premiums are one of the most important benefits of creating brand awareness and strong, favorable, and unique brand associations.

Customers use price as an important extrinsic cue and indicator of product quality or benefits. High-priced brands are often perceived to be of higher quality and less vulnerable to competitive price cuts than low-priced brands (Blattberg and Winniewski, 1989; Dodds, Monroe, and Grewal, 1991; Kamakura and Russell, 1993; Milgrom and Roberts, 1986; Olson, 1977). Therefore, price is positively related to perceived quality. Rao and Monroe (1989) show that a positive relationship between

price and perceived quality has been supported through previous research. By increasing perceived quality, is related positively to brand equity.

Store Image

Store image is defined as "set of interdependent organizations involved in the process of making a product or service available for use or consumption. Store involves design and management of intermediaries such as wholesalers, distributors, brokers, and retailers.

The importance of channel design and management as a marketing tool of increasing brand equity is growing (Srivastava and Shocker, 1991). In a distribution channel, retailers encounter a firm's ultimate consumers. Selecting and managing retailers is therefore a firm's major marketing task in satisfying consumers' needs. In particular, distributing through good image stores signals that a brand is of good quality, Dodds et al. (1991) find significant positive effects of store image on perceived quality. The store name is a vital extrinsic cue to perceived quality. The quality of a given brand is perceived differently depending on which retailer offers it. Customer traffic will be greater in a store with a good image than in one with a bad image. Good-image stores attract more attention, contacts, and visits form potential customers. In addition, such stores provide greater consumer satisfaction and stimulate active and positive word-of-mouth communications among consumers (Rao and Monroe, 1989; Zeithaml, 1988). Therefore, distributing a brand through an outlet with a good image will create more positive brand associations than distributing through an outlet with a bad image.

Advertising

Advertising is the means by which the firms attempt to inform, persuade, and remind customers. The one of marketing communications is advertising defined as any paid form of non-personal presentation and promotion of ideas, goods, or services

by an identified sponsor. Advertising plays an important and often controversial role in contributing to brand equity.

Overwhelmingly, advertising the researchers found advertising is successful in generating brand equity, whereas sales promotion is unsuccessful (Boulding, Lee, and Staelin, 1994; Chay and Tellis, 1991; Johnson, 1984: Lindsay, 1989; Maxwell, 1989). Simon and Sullivan (1993) find a positive effect of advertising spending on brand equity Cobb-Walgren, Beal, and Donthu (1995) find that the dollar amount spent on advertising has positive effects on brand equity and its dimensions.

Advertising is an important extrinsic cue signaling product quality (Milgrom and Roberts, 1986). Heavy advertising spending shows that the firm is investing in the brand, which implies superior quality (Kimani and Wright, 1989). In addition, Archibald, Haulman, and Moody (1983) find that advertising spending levels are good indicators of not only high quality but also good buys. Aaker and Jacobson (1994) also find a positive relationship between advertising and perceived quality. Hence, advertising spending is positively related to perceived quality, which leads to higher brand equity.

Advertising plays a pivotal role in increasing brand awareness as well as creating strong brand associations. Repetitive advertising schedules increase the probability that a brand will be included in the consideration set, which simplifies the consumer's brand choice, making it a habit to choose the brand (Hauser and Wernerfeldt, 1990). Thus, a greater amount of advertising is related positively to brand awareness and associations, which leads to greater brand equity. In addition, according to an extended hierarchy of effects model, advertising is positively related to brand loyalty because it reinforces brand-related associations and attitudes toward the brand (Shimp, 1997).

2.4 PREVIOUS STUDY

Nowadays, many modern companies are facing their toughest competition ever, how companies can go about winning customers and outperforming competitors. The answer lies in doing the better job of meeting and satisfying customer needs. Only customer-centered companies are adept at building customers, not just products. The fulfillment of a customer's need and want is called value delivery. Many researchers spend much more time focusing on the improvement and measurement of both brand value and customer value to meet customers needs as shown in following researches:

Knox and Maklan (1998) proposed a new concept model of a fundamental change in the purchasing motivation and behavior of customers and the methods by which companies meet these new customer expectations. Knox and Maklan define that companies are re-examining their fundamental assumptions about the way in which they define and deliver value to their customers. Marketing and brand strategies successfully deployed in the 1980s and 1900s are longer sufficient to ensure continues profitable growth, customer loyalty and competitive advantage. Today, global competition offers everyone a meaningful choice of equally competent suppliers. The sharp-end of creation customer value lies with the organization's ability to; customize products and services, direct complex supply chains on behalf of customers, provide pre-sales advice and post-sales service, maximize customer convenience, and work effectively within alliances on behalf of customers.

Zinaida (2001), *Competitive Aspects of Brand Value for Passenger Cars: The Inverse Demand Model Analysis*. This paper attempts to extend the market-related approach to areas such as the automobile market, where no nonbranded products exist. Their approach is based on the existence of a secondary market for cars in the form of the car dealership system. This arrangement means that there are two prices for automobiles, the invoice price and the manufacturer suggested retail price

(MSRP). The inverse demand function approach is applied to that part of the MSRP directly associated with the secondary market. In the adjusted form, the inverse demand function involves two types of variables: the competitive brand value (CBV) and consumer value (CCV). This paper models the consumer value variable via clusters of CCV equivalent cars that can be identified using the data provided by experts on the competition for each of the new car models on the market. If these clusters are found, the estimation of the competitive brand values can be made for brands present in other CCV equivalent clusters. Their model has been validated for the passenger car market segment, thus allowing estimation of the relative competitive brand value of eleven major brands. The results suggest possible ways to improve the process of categorizing car models, and have implications for production, price management, and consumer choice. By modeling the inverse demand function based on CCV and CBV, this paper extends Sullivan's (1988) approach to include car models beyond twin cars. Additionally, the results indirectly confirm Sullivan's (1988) finding on the relative importance of parent brand (e.g., Toyota) over specific brand (e.g., Corolla).

Schwarze (2001), *A Model of Forecast the Effects of Price Change on Brand Loyalty of Non-durable*, Consumer Packaged Goods in a Competitive Environment. Maintaining brand loyalty is a problem facing many consumer goods manufacturers in a competitive environment. This dissertation deals with the effects of price changes on brand loyalty. The purpose of this dissertation is to develop a model describing consumer reaction in terms of retaining brand loyalty as prices change and to describe the importance of product quality and brand strength as causal factors on maintaining brand loyalty. Previous literature studied the importance of the factors of coupon usage, advertising, product development, brand value, and perceived quality levels on brand loyalty. Consumer reactions to price changes given brand attitude levels,

quality levels, promotion and advertising levels for laundry detergent and hot dogs are hypothesized. In this study, consumers were asked their intentions of repurchasing their preferred brand given various levels of price changes. Responses were then separated by levels of brand loyalty, levels of market share, coupon usage, brand value, and perceived quality levels. Price elasticities were calculated for different levels and categories. It was concluded that price elasticities are dependent upon quality levels and that price sensitivity behaves in multi-tier fashion with respect to quality levels. The deterministic model shows quality levels and product innovation as predominant causal variables in predicating brand loyalty. Methodology for developing a deterministic model to predict brand loyalty and to measure price sensitivity is discussed. Results are discussed with recommendations for future study enabling generalization of brand loyalty model construction to other products, with consideration to factors such as high involvement products and the separation of normal and inferior products.

Yoo, Donthu, and Lee (2000), *An Examination of Selected Marketing Mix Elements and Brand Equity*. This study explores the relationships between marketing mix elements and the creation of brand equity. They propose a conceptual framework in which marketing elements are related to the dimensions of brand equity, that is, perceived quality, brand loyalty, and brand associations combined with brand awareness. These dimensions are then related to brand equity, The empirical tests using a structure equation model support the research hypotheses. The result show that frequent price promotions, such as price deals, are related to low brand equity, whereas high advertising spending, high price, good store image, and high distribution intensity are related to high brand equity.

Chapter III

Research Frameworks

Before proceeding in this chapter, it would be worthwhile to recall that the objective of this research is to study in a brand equity as a strategic weapon to create brand value. The researcher selects NOKIA brand in this study and selected respondents, who are users and have use experience, are limited in Bangkok area.

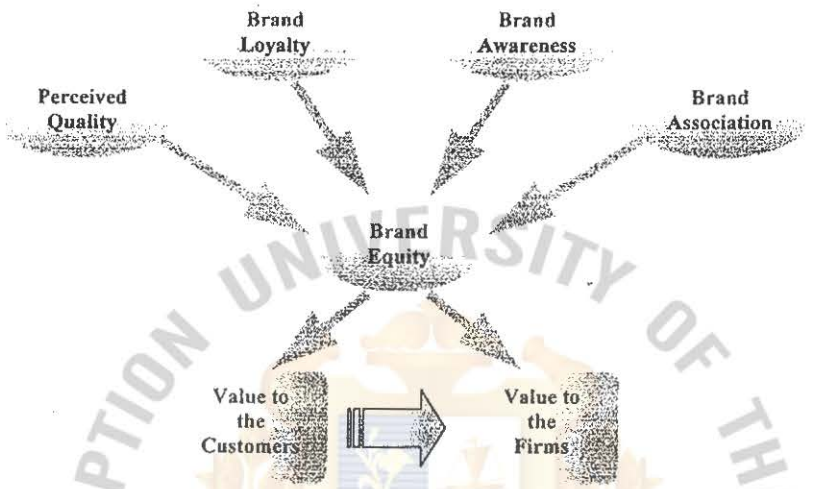
This chapter discusses about theoretical framework that brand equity proposed by Aaker (1991) is as a useful tool of this research. Concept of building brand value defined by Knox and Maklan (1998) is applied with brand equity of Aaker's model as modified conceptual framework of this research. Then, the researcher sets research hypotheses as well as the selected variables regarding to build brand value.

3.1 THEORETICAL FRAMEWORK

Aaker (1991) proposes that, first, brand equity creates value for both the customer and the firm. Brand equity assets generally add or subtract value for customers. They can help them interpret, process, and store huge quantities of information about products and brands. They also can affect customers' confidence in the purchase decision and potentially enhance customers' satisfaction with the use experience. Second, brand equity provides value to the firm. Enhanced brand loyalty is especially important in buying time to respond when competitors innovate and obtain product advantage. They will usually allow higher margins by permitting both premium pricing and reduced reliance upon promotion. They can provide a platform for growth via brand extension and provide leverage in the distribution channel as a competitive advantage. Third, value for the customer enhances value for the firm due to the higher customer loyalty. Finally, brand equity consists of multiple dimensions:

perceived quality, brand loyalty, brand awareness, and brand associations. Theoretical framework of brand equity is an extension of Aaker's model shown in figure 3.1.

Figure 3.1: A Theoretical Framework of Brand Equity



Source: David Aaker, Managing Brand Equity, Free Press, New York, 1991, p.17

3.2 MODIFIED CONCEPTUAL FRAMEWORK

The researcher modifies conceptual framework of building brand value by using brand equity. The researcher uses Aaker's brand equity model as a fundamental in study. First, the researcher places a separate construct, brand equity, between the dimensions of brand equity and the value for the customer and the firm. Second, the researcher adds antecedents of brand equity, marketing mix activities, assuming that they have significant effects on the dimensions of brand equity. Third, the researcher places a construct of brand value investigated in a part of price premium, and brand extensions.

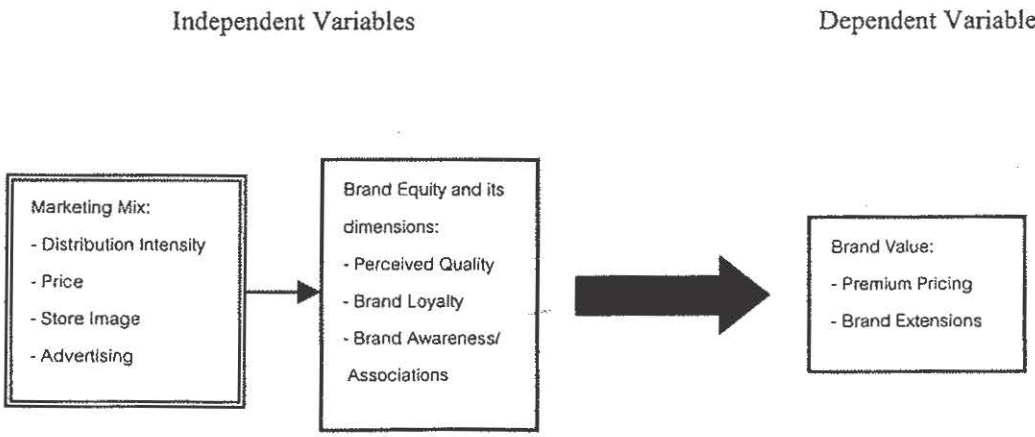
Knox and Maklan (1998) identify the concept of building brand value. Marketing has been focussed on creating brand value, particularly in the brand-conscious eighties and translating this into a value through branding. In the mean

time, quality levels rose across the broad in most industries, customer became more discerning and knowledgeable, and choice increased dramatically. The recession of the 1990s has probably encouraged customers to take a hard look at the value of all their purchase, thus exposing the weaknesses of many brand leaders. Therefore, Knox and Maklan generate brand value through customers concept to want company marketers to spend a much more time influencing the company's core processes as designing brand and customer relationship.

From the study of Knox and Maklan, the researcher uses their concept as a useful practice for modifying this research. Then, the researcher applies it by using brand equity as a strategic weapon to creating brand value. Marketing mix elements are also added up in a modified conceptual framework as the impact of successful and failure marketing mix elements on brand equity. Modified conceptual framework is exhibited in figure 3.2.

Investigating of the relationship between brand value and brand equity is the focus of this research.

Figure 3.2: A Modified Conceptual Framework of a Brand Equity as a Strategic Weapon to Create Brand Value



For independent variables, one is marketing mix elements. The researcher focuses on a few keys of marketing mix elements. In particular, the researcher selects distribution intensity, price, store image, and advertising from traditional "4P" marketing activities as a representative set of marketing programs. Brand equity is another. Its dimensions of this study, the researcher investigates on perceived quality, brand loyalty, and grouped brand awareness and associations. For dependent variables, the researcher sets price premium and brand extensions as sub-elements of brand value to measure future performance of a brand by assessing customers' perception.

3.3 RESEARCH HYPOTHESES

The main purpose of this study is to investigate brand value created by brand equity that is influenced by selected marketing mix elements. On the basis of the literature, the researcher hypothesizes directional relationship paths among the structures are summarized in figure 3.3.

The researcher examines sixteen hypotheses for supporting research objectives. The researcher classifies two groups. The first group of this research includes seven hypotheses, which focus on the relationship between brand value and brand equity ($H0_1$), and the relationship between the elements of brand value and the dimensions of brand equity ($H0_2$-$H0_7$). Another group includes nine hypotheses that focus on influencing selected marketing mix elements on the dimensions of brand equity ($H0_8$-$H0_{16}$). These hypotheses are as following.

Group I:

The Relationship between Brand Value and Brand Equity

Hypothesis 1:

$H0_1$: There is no relationship between brand value and brand equity.

$H1_1$: There is a relationship between brand value and brand equity.

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 2:

$H0_2$: There is no relationship between perceived quality and price premium.

$H1_2$: There is a relationship between perceived quality and price premium.

Hypothesis 3:

$H0_3$: There is no relationship between perceived quality and brand extensions.

$H1_3$: There is a relationship between perceived quality and brand extensions.

Hypothesis 4:

$H0_4$: There is no relationship between brand loyalty and price premium.

$H1_4$: There is a relationship between brand loyalty and price premium.

Hypothesis 5:

$H0_5$: There is no relationship between brand loyalty and brand extensions.

$H1_5$: There is a relationship between brand loyalty and brand extensions.

Hypothesis 6:

$H0_6$: There is no relationship between brand awareness/associations and price premium.

$H1_6$: There is a relationship between brand awareness/associations and price premium.

Hypothesis 7:

$H0_7$: There is no relationship between brand awareness/associations and brand extensions.

$H1_7$: There is a relationship between brand awareness/associations and brand extensions.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 8:

$H0_8$: There is no relationship between distribution intensity and perceived quality.

$H1_8$: There is a relationship between distribution intensity and perceived quality.

Hypothesis 9:

$H0_9$: There is no relationship between distribution intensity and brand loyalty.

$H1_9$: There is a relationship between distribution intensity and brand loyalty.

Hypothesis 10:

$H0_{10}$: There is no relationship between distribution intensity and brand awareness/associations.

$H1_{10}$: There is a relationship between distribution intensity and brand awareness/associations.

Hypothesis 11:

$H0_{11}$: There is no relationship between price and perceived quality.

$H1_{11}$: There is a relationship between price and perceived quality.

Hypothesis 12:

$H0_{12}$: There is no relationship between store image and perceived quality.

$H1_{12}$: There is a relationship between store image and perceived quality.

Hypothesis 13:

$H0_{13}$: There is no relationship between store image and brand awareness /associations.

$H1_{13}$: There is a relationship between store image and brand awareness /associations.

Hypothesis 14:

$H0_{14}$: There is no relationship between advertising and perceived quality.

$H1_{14}$: There is no relationship between advertising and perceived quality.

Hypothesis 15:

$H0_{15}$: There is no relationship between advertising and brand loyalty.

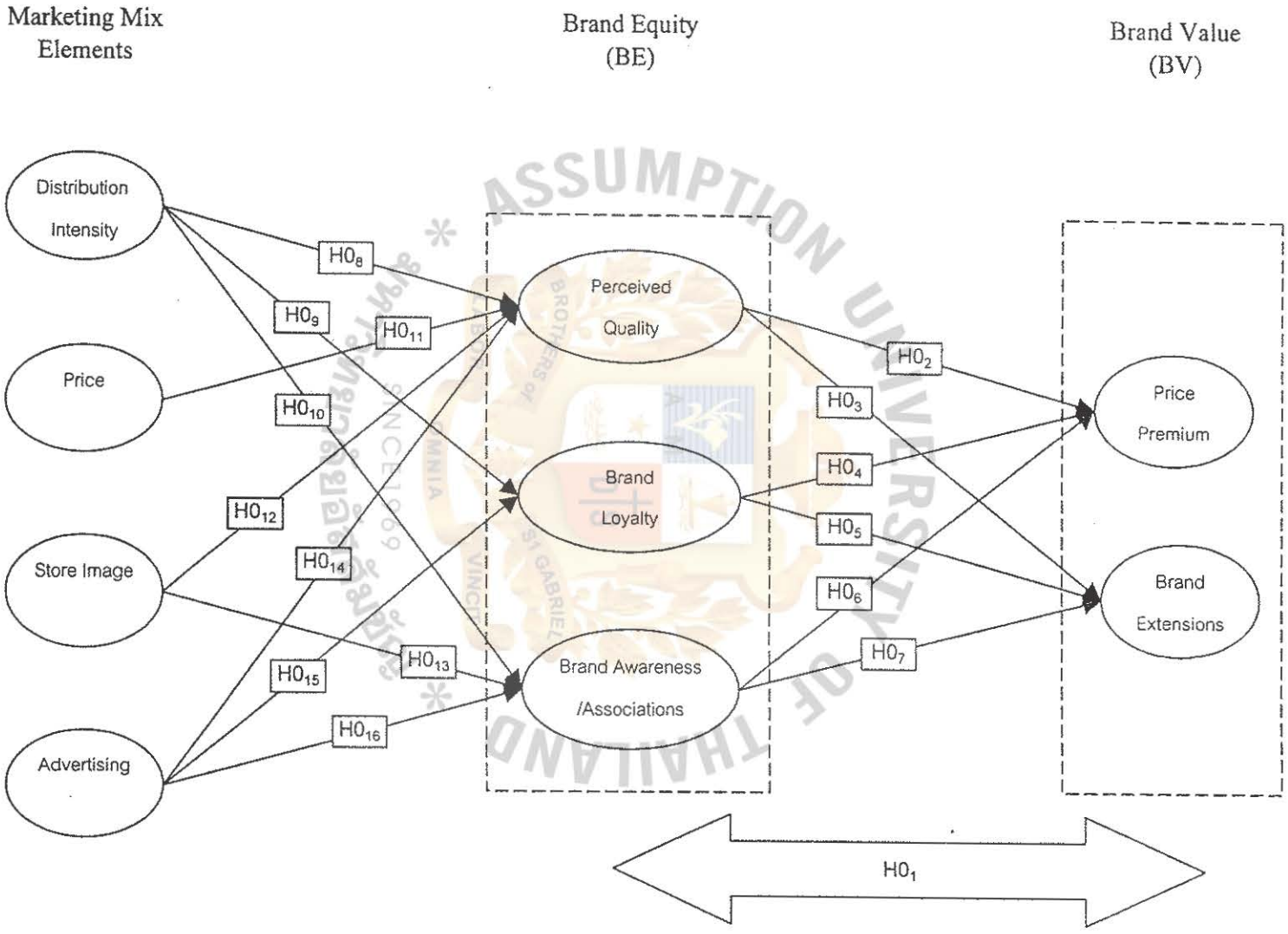
$H1_{15}$: There is a relationship between advertising and brand loyalty.

Hypothesis 16:

$H0_{16}$: There is no relationship between advertising and brand awareness /associations.

$H1_{16}$: There is a relationship between advertising and brand awareness /associations.

Figure 3.3: The Construction of Directional Relationship Path Among the Variables



3.4 Operationalization Of The Dependent Variables

In this research, there is a main dependent variable, which is brand value. The following table is shown to clarify the operational definitions of each component for those variables.

Brand Value

The researcher identifies the elements of brand value in this study including price premium, and brand extensions shown in Table 3.1

Table 3.1: Operationalization of Brand Value Characteristics

Components	Operational Definitions
Price Premium Question 1-3 in Part I	1) I would prefer prices of NOKIA. 2) If other brand mobiles would have to cost 20 percent less than NOKIA before I would not switch brands. 3) Considering the price related to quality, I would rate the overall value of NOKIA.
Brand Extensions Question 4-6 in Part I	4) I would expect to see a new series of NOKIA. 5) My first impression in hearing when NOKIA is introducing a new model. 6) I love to trial a new series of NOKIA.

3.5 Operationalization Of The Independent Variables

In this research, there are two main independent variables, which are brand equity and marketing nix elements. The following table is shown to clarify the operational definitions of each component for those variables.

Brand Equity

The researcher identifies the dimensions of brand equity in this study including perceived quality, brand loyalty, and brand awareness/associations shown in Table 3.2

Table 3.2: Operationalization of Brand Equity Characteristics

Components	Operational Definitions
Perceived Quality Question 7-9 In Part II	7) NOKIA is of high quality. 8) The quality of NOKIA has been improved continuously over the last several years. 9) NOKIA is respected for innovation.
Brand Loyalty Question 10-12 In Part II	10) NOKIA would be my first choice. 11) If there is another brand as good as NOKIA, I prefer to buy NOKIA. 12) I will buy NOKIA on next purchase.
Brand Awareness/ Associations Question 13-15 In Part II	13) I have consistently heard or seen of NOKIA brand. 14) I can quickly recall the symbol or logo of NOKIA. 15) NOKIA is different from other brands.

Marketing Mix Elements

The researcher identifies marketing mix elements in this study including distribution intensity, price, store image, and advertising shown in Table 3.3

Table 3.3: Operationalization of Marketing Mix Elements

Components	Operational Definitions
Distribution Intensity Question 16-18 In Part III	16) More stores sell NOKIA, as compared to its competing brands. . 17) The number of the stores that deal with NOKIA is more than that of its competing brands. 18) NOKIA is distributed through as many stores as possible.
Price Question 19-21 In Part III	19) Over time, NOKIA has consistently offered me better price value for its products/services. 20) At the price shown, I would consider buying NOKIA. 21) NOKIA is expensive.
Store Image Question 22-23 In Part III	22) The stores where I can buy NOKIA carry products of high quality. 23) The stores where I can buy NOKIA would be of high quality. 24) The stores where I can buy NOKIA have well-known brand.
Advertising Question 24-27 In Part III	25) When I view the NOKIA's ad, I can visualize the wonderful emotional experience I will have using NOKIA. 26) The ad campaigns for NOKIA seem very expensive, compared to campaign for competing brands. 27) The ad campaigns for NOKIA are seen frequently.

Chapter IV

Research Methodology

Before proceeding in this chapter, it would be worthwhile to recall that the objective of this research is to study in a brand equity as a strategic weapon to create brand value. The researcher selects NOKIA brand in this study and selected respondents, who are users and have use experience, are limited in Bangkok area.

This chapter discusses about theoretical framework that brand equity proposed by Aaker (1991) is as a useful tool of this research. Concept of building brand value defined by Knox and Maklan (1998) is applied with brand equity of Aaker's model as modified conceptual framework of this research. Then, the researcher sets research hypotheses as well as the selected variables regarding to build brand value.

4.1 Research Method Used

This research focuses on aspect of brand value created by brand equity. A selected research design of this study used as a guide in collecting and analyzing data is descriptive and exploratory research.

The descriptive research study is typically concerned with determining the frequency with, which something occurs or the relationship between two variables (Churchill, 1991). Thus, the descriptive research is used to describe the characteristics of certain groups as well as to estimate the proportion of people in a specified population who behave in a certain way (Churchill, 1999). The descriptive research is designed to employ in this study in order to describe the demographic characteristics and the respondents' perception on marketing mix elements, brand equity, and brand value.

In order to gather the data, survey is the very appropriate research technique because it is a method of primary data collection based on communication with a representative sample of individuals. The principal advantage of survey method is that it can collect a great deal of data about an individual respondent at one time. Survey also provides a quick, inexpensive, efficient and accurate means of assessing information about a population (Kumer, Aaker and Day, 1999)

Moreover, to explore the reasons that lie behind the statistical for measuring the relationship between brand value and brand equity and the linkage shown on figure 3.3 that may emerge from surveys. The exploratory research is another method that is applied to this study. The exploratory study is particularly helpful in breaking broad, vague problem statements into smaller, more precise sub-problem statements, hopefully in the form of specific hypotheses (Churchill, 1991). Thus, to obtain some background information where absolutely nothing is known about the problem area, the hypotheses are formulated for the investigation (Malhotra and Birks, 2000). Thus, the hypotheses created to brand value are examined in this research.

4.2 Respondents and Sampling Procedures

Population

The respondents of this research are people in Bangkok who are NOKIA's users, not whoever, to assess brand value. The researcher collects data by surveying respondents who are serviced from NOKIA Professional Center in Bangkok. There are eight NOKIA Professional Centers around Bangkok area: World Trade Center, Central Pinklaw, Central Rama3, Central Ladphrao, Mahboonkrong, The Mall Ngamwongwan, Future Park Rangsit, and Seacon Square.

Sample Size

Due to the research based on brand value assessment, the researcher does not have sales volume data of NOKIA in Thailand. The sample size necessary to estimate a population proportion also can be based on a specification of the absolute precision to be provided by the estimate.

Absolute precision will be a function of the value, that is, within a certain percentage of the value regardless of its level. The formula of absolute precision shown as below (Churchill, 1991; p.592):

$$n = \frac{Z^2 \pi(1-\pi)}{H^2}$$

When, n = Sample size

Z = Degree of confidence

π = Population proportion

H = Standard error of the proportion

Due to no exactly sales volume data of NOKIA in Thailand, Kallaya (2001) recommended 50 percent of population proportion that is appreciate population proportion percentage in calculating sample size. Therefore, the researcher sets up 50 percent of population proportion, 95 percent confidence ($Z = 1.96$), and 5 percent of standard error of the proportion.

$$n = \frac{(1.96)^2(0.5)(1-0.5)}{(0.05)^2}$$

$$n = 385$$

From calculation, sample size for this study, the researcher uses 400 samples by adding more 15 samples.

Sample Plan

The sample size for the study is 400 respondents who are NOKIA's users in Bangkok. The researcher use Multi-stage sampling to determined the sample size as follows:

a) Simple random sampling used to assure that each element in the population has equal chance of being included in the sample (Zigmund, 2000; p.453). The researcher random sampling by drawing five from eight NOKIA Professional Centers in Bangkok area. These consist of World Trade Center, Central Rama3, Central Ladphrao, Mahboonkrong, and Seacon Square.

b) Quota sampling used to ensure that the various subgroups in a population are presented on pertinent sample characteristics to the exact extent (Zigmund, 2000; p.452), so the populations of respondents in this study are designed into five groups. The proportion of population for each dealers is as follows:

NOKIA Professional Centers	Respondents
World Trade Center	80
Central Rama3	80
Central Ladphrao	80
Mahboonkrong	80
Seacon Square	80
Total	400

c) Convenience sampling used to obtain people who are most conveniently available (Zigmund, 2000; p.450), therefore the researcher collected the data from the NOKIA's users in Bangkok.

4.3 RESEARCH INSTRUMENT/QUESTIONNAIRES

In this investigation, questionnaire is used as instrument to acquire several aspects of respondents' perception on brand value and brand equity of a brand. To

achieve that, the questionnaire is divided into four parts that are Brand Value, Brand Equity, Marketing Mix Elements, and Personal Data.

Part I: Brand value instrument consists of six statements to measure customers' perception through the brand value of NOKIA. Brand value includes two sub-elements that are price premium, and brand extensions. Firstly, the questions of price premium are applied from The Brand Equity Ten. Then, finally, brand extensions' questions also applied from the previous study in managing brand equity by Keller (1996). Respondents are screened based on their use experience. Five point Likert-scale is used to indicate the degree of respondents assign to each statement from strongly agree to strongly disagree.

Part II: Brand equity instrument consists of nine statements to measure the four dimensions of brand equity including perceived quality, brand loyalty, and brand awareness/associations. All of the questions are applied from the previous study by Yoo, Donthu, and Lee (2000). Respondents are screened based on their use experience. Five point Likert-scale is used to indicate the degree of respondents assign to each statement from strongly agree to strongly disagree.

Part III: Marketing mix elements instrument consists of twelve statements to measure the respondents' perception toward marketing programs of the firm through the brand. The researcher investigates four elements, that are distribution intensity, price, store image, and advertising. All of the questions are applied from the previous study by Yoo, Donthu, and Lee (2000). Respondents are screened based on their use experience. Five point Likert-scale is used to indicate the degree of respondents assign to each statement from strongly agree to strongly disagree.

Part V: Personal data of the respondents are collected to find out the profiles of the respondents measured by gender, marital status, age, education level, occupation category, and personal monthly income.

4.4 PRETEST

Churchill (1999) stated that each question in the questionnaire should be reviewed to ensure that the question is not confusing or ambiguous, potentially offensive to the respondent, leading or bias inducing and also is easy to answer. Thus, the real test of questionnaire is used to find out how it performs under actual conditions of data collection. Pretests is vital and are defined as trial runs with a group of respondents for the purpose of detecting problems in the questionnaire instructions or design/ In the pretest, the researcher look for evidence of ambiguous questions and respondents, and other considerations (Zikmund, 1997) due to the thing to all respondents, and other considerations cannot ask the researcher of they do not understand the question, it is required for this study to do the pretest which is run with a group of respondents before launching the questionnaire.

Vanichbuncha (2001), mentioned that in order to conduct the pilot survey or Pre-test, the number of respondents should be at least 25 samples. In this research, 60 respondents are participated in the pretest.

The researcher used the Cronbach's Coefficient Alpha Scales (Cronin & Tayler, 1992) to test reliability of questionnaires. The result of reliability analysis after examining of the pilot study is shown in Table 4.1.

Table 4.1: Reliability Analysis-Scale (Cronbach's Coefficient Alpha)

Operational Dimensions	Reliability
Brand Value	0.60
Brand Equity	0.86
Marketing Mix Elements	0.69
Total	**0.89**

Sekaran (1992) mentioned that if the reliability value is at least 0.6, it is considered reliable. As the result of reliability analysis from the pilot study, questionnaires in this research are sufficient for examining the relationship between brand value and brand equity of NOKIA product in Bangkok because Coefficient's Alpha Scale of the pilot study is greater than 0.6 (0.89>0.60).

4.5 Collection Of Data/Gathering Procedures

To collect data for this research, the structured interview with closed-form questionnaire will be used. This method would offer a number of benefits to the researcher. As there is no doubt that the interviewers are likely to bias with the different situations with different interviewees. Therefore, the structured interview would minimize this bias and could provide data with more neutral information from the interviewees' point of their communicative competent. Beside that, it is a possible way to utilize less skilled interviewers with less cost with a structured form according to the confined duties of interviewers is basically to provide and record those answers. In this study, respondents will be asked to think of perception through the brand in term of brand value, brand equity, and marketing mix elements by responding the questionnaire form.

4.6 Statistical Treatment Of Data

To analyze the data collected from the respondents, the Statistic Package for Social Science (SPSS) program are used for analyzing data. From a modified conceptual framework, descriptive analysis, independent-sample T test, the analysis of variance (ANOVA), and correlation coefficient are main selected statistic for this research to measure the relationship among elements. The researcher sets 95 percent confident.

Descriptive Analysis

In order to interpret the data gathered, descriptive analysis is applied to transform the raw data into a form. The form will make them easy to understand and interpret; rearrange, order, and manipulate data to generate descriptive information such as frequency distributions, percentage distributions, and means (Zikmund, 1997).

Independent Sample T-Test

Independent T-test is used to test the hypothesis stating that the mean scores on some interval or ratio scale variable will be significantly different for two independent samples or groups. To use independent T-test for difference of means, it is assumed the two samples are drawn from normal distributions (Churchill, 1999). The following is the formula for independent T-test analysis (Saiyod & Saiyod, 1995).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{((s_1^2/n_1) + (s_2^2/n_2))^{1/2}}$$

and

$$df = \frac{(s_1^2/n_1) + (s_2^2/n_2)}{\frac{(s_1^2/n_1)^2}{(n_1 - 1)} + \frac{(s_2^2/n_2)^2}{(n_2 - 1)}}$$

Where $\bar{X}_1$ = Mean of group 1

$\bar{X}_2$ = Mean of group 2

S_1^2 = Variance of group 1

S_2^2 = Variance of group 2

n_1 = Sample size of group 1

n_2 = Sample size of group 2

df = Degree of freedom

The Analysis of Variance (ANOVA)

The analysis of variance (ANOVA) will be used to test hypotheses, that is, to determine whether there are any differences of the means occurring between two or more groups in one independent variable. The ANOVA of F-test is the ratio as shown below (Zilmund, 2000; p.649):

$$F = \frac{MS_b}{MS_w}$$

Table 4.2: ANOVA Summary

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-Ratio
Between groups	SS_b	$P-1$	MS_b	-
Within groups	SS_w	$N-P$	MS_w	(MS_b / MS_w)
Total	SS_t	$N-1$	-	-

When, F = F distribution

MS_b = Mean square between groups

MS_w = Mean square within groups

SS_b = Sum of square between groups

SS_w = Sum of square within groups

SS_t = Sum of square total

P = Number of groups

N = Number of observations in a group

Correlation Analysis

Correlation analysis involves measuring the closeness of the relationship between two or more variables; it considers the joint variation of two measures, neither of which is restricted by the experimenter (Churchill, 1991).

A positive correlation reflects a tendency for a high value in one variable to be associated with high value in the second. A negative correlation reflects an association between a high value in one variable and a low value in the second variable. The expression for the sample correlation coefficient (r) is called the Pearson product-moment correlation coefficient that measures the degree to whish there is a linear association between two intervally scaled variables (Kumar, Aaker and Day, 1999; p.490). Correlation analysis has a value between –1 and +1 that indicates the strength of the linear relationship between two quantitative variables called bivariate correlation, or among three quantitative variables called partial correlation. Both of correlation are used to analyze this research.

Neil J. Solkind (2000) identified the degree of relationship between variables as follows:

Table 4.3: The Interpreting the Correlation Coefficient

Correlation between	Meaning
0.81 - 1.00	Very Strong
0.61 - 0.80	Strong
0.41 - 0.60	Moderate
0.21 - 0.40	Weak
0.00 - 0.20	Very Weak

Source: Neil J. Solkind, Exploring Research, 2000, p.207-208

Pearson Product-Moment Correlation Coefficient

The concept of simple correlation provides a measure of the relationship between two variables, which the Pearson product-moment correlation coefficient is used for this study. The correlation coefficient can be expressed as follow:

$$r_{xy} = \frac{n\Sigma xy - (\Sigma x)(\Sigma y)}{[(n\Sigma x^2 - \Sigma x^2)(N\Sigma y^2 - \Sigma y^2)]^{1/2}}$$

When, r_{xy} = The correlation coefficient between x and y

N = The size of sample

n = The number of sample

x = The individual's score on the x variable

y = The individual's score on the y variable

xy = The product of each x score time its corresponding y score

x^2 = The individual x score, square

y^2 = The individual y score, square

As discussed earlier, the calculation of the correlation coefficient *r* assumes that the variables, whose relationship is being tested, are metric. If this assumption is not met either partially or completely, it affects the value of ρ. A simple test of hypothesis

can be performed to check the significance of the relationship between two variables, measured by r. This involves testing the null hypothesis H0: $\rho = 0$ against the alternative hypothesis H1: $\rho \neq 0$. To test the significance of this relationship, the test statistic t can be computed using

$$t_r = \frac{r - \rho}{[(1-r)^2(n-2)]^{1/2}}$$

When, t_r = t - distribution

r = The correlation coefficient

ρ = The population correlation coefficient

n = The number of sample

Chapter V

Presentation of Data and Critical Discussion of Results

This chapter is primarily concerned with the results of the survey from the procedures discussed earlier in Chapter 4. The objective of this research is to measure brand value created by concept of brand equity as a strategic weapon. Respondents are users, who have experience in using NOKIA mobile phone, and selected area of this study is in Bangkok. The data analysis presentation and interpretation based on the data of 400 samples collected consist of following two sections: (1) Socioeconomic Characteristics of All Respondents - to summarize the demographic factors including gender, marital status, age, highest education level, occupation category, and income level presented by frequency and percentage of personal data, and (2) Hypothesis Testing - to measure the relationship of among elements in sixteen hypotheses tested by correlation coefficient.

5.1 Socioeconomic Characteristics Of All Respondents

To identify the characteristics of the respondents participating in this study, the socioeconomic characteristics of 400 respondents who are NOKIA's user in Bangkok area. They consist of gender, marital status, age, highest education level, occupation category, and income level presented by frequency and percentage of personal data demonstrated in Table 5.1. The description of elements of brand value, elements of customer value, dimensions of brand equity, and marketing mix elements from customers' perception are tested by mean and ranking shown in Table 5.2 to 5.4; respectively.

Table 5.1: Summary of Socioeconomic Characteristics of All Respondents

Socioeconomic Characteristics	Frequency	Percentage (%)
Gender		
Male	176	44.0
Female	224	56.0
Total	400	100.0
Marital Status		
Single	329	82.3
Married	69	17.3
Divorced/Widowed	2	0.5
Total	400	100.0
Age		
20 or less	87	21.8
21 – 30 year	205	51.3
31 – 40 year	94	23.5
41 – 50 year	13	3.3
51 or more	1	0.3
Total	400	100.0
Highest education level		
High school graduate or less	37	9.3
Diploma degree	38	9.5
Bachelor degree	277	69.3
Master degree	47	11.8
Doctoral degree	1	0.3
Total	400	100.0
Occupation category		
Student	142	35.5
Employee	187	46.8
Management	14	3.5
Government	48	12.0
Self employed	5	1.3
Other (.....)	4	1.0
Total	400	100.0
Income per month (Baht)		
10,000 or less	170	42.5
10,001 – 20,000	129	32.3
20,001 – 30,000	62	15.5
30,001 – 40,000	17	4.3
40,001 or more	22	5.5
Total	400	100.0

Description of Socioeconomic Characteristics

From Table 5.1, of the 400 samples, the major gender of the respondents using NOKIA brand in this research is 56 percent of female, whereas 44 percent of male.

The highest percentage of marital status of this study is 82.3 percent of single, 17.3 percent of married, and the lowest percentage is 0.5 percent of divorced and widowed.

The majority of age of the respondents in this research is 51.3 percent of 21 to 30 years old, 23.5 percent of 31 to 40 years old, 21.8 percent of below 20 years of age, 3.3 percent of 41 to 50 years old, and 0.3 percent of the respondents aged over 50 years old, respectively.

The highest percentage of education level of the respondents is 69.3 percent of bachelor degree, 11.8 percent of master degree, 9.5 percent of diploma degree, 9.3 percent of below high school graduate, and the lowest percentage is 0.3 percent of doctoral degree.

For occupation category of the respondents, the highest percentage is 46.8 percent of employee, 35.5 percent of student, 12.0 percent of government, 3.5 percent of management, 1.3 percent of self employed, and the lowest of percentage is 1.0 percent of other.

The income per month was based on the income levels. The highest percentage is 42.5 percent of income level below 10,000 baht, 32.3 percent of income level from 10,001 to 20,000 baht, 15.5 percent of income level from 20,001 to 30,000 baht, 5.5 percent of income level over 40,000 baht, and the lowest percentage is 4.3 percent of income level from 30,001 to 40,000 baht.

Description of Elements of Brand Value

The analysis of the questionnaire can concentrate on finding out the most critical of elements of brand value from customers' assessment in price premium, and brand extensions shown in Table 5.2.

Table 5.2: Summary of Description along Elements of Brand Value

	Mean	Ranking
Price Premium	2.9308	2
Brand Extensions	3.9350	1
Brand Value	3.4329	-

From the result as shown in Table 5.2, the highest percentage of customers' perception through the elements of brand value is brand extensions, which is followed by price premium with means of 3.9350, and 2.9308; respectively. Brand value, grouped these elements, is analyzed with means of 3.4329.

Description of Elements of Dimensions of Brand Equity

The analysis of the questionnaire can concentrate on finding out the most critical of dimensions of brand equity from customers' assessment in perceived quality, brand loyalty, and brand awareness/associations shown in Table 5.3.

Table 5.3: Summary of Description along Dimensions of Brand Equity

	Mean	Ranking
Perceived Quality	3.7183	2
Brand Loyalty	3.3558	3
Brand Awareness/Associations	3.8725	1
Brand Equity	3.6489	-

From the result as shown in Table 5.3, the highest percentage of customers' perception through the dimensions of brand equity is brand awareness/associations, which is followed by perceived quality, and brand loyalty with means of 3.8725, 3.7183, and 3.558; respectively. Brand equity, grouped these elements, is analyzed with means of 3.6489.

Description of Marketing Mix Elements

The analysis of the questionnaire can concentrate on finding out the most critical of marketing mix elements from customers' assessment in distribution intensity, price, store image, and advertising shown in Table 5.4.

Table 5.4: Summary of Description along Marketing Mix Elements

	Mean	Ranking
Distribution Intensity	3.5308	2
Price	3.3592	4
Store Image	3.3867	3
Advertising	3.6033	1

From the result as shown in Table 5.4, the highest percentage of customers' perception through marketing mix elements is advertising, which is followed by distribution intensity, store image, and price with means of 3.6033, 3.5308, 3.3867, and 3.3592; respectively.

The researcher used the Cronbach's Coefficient Alpha Scales (Cronin & Tayler, 1992) to test reliability of questionnaires. The result of reliability analysis after collecting of 400 respondents is shown in Table 5.5.

Table 5.5: Reliability Analysis-Scale (Cronbach's Coefficient Alpha)

Operational Dimensions	Reliability
Brand Value	0.60
Brand Equity	0.84
Marketing Mix Elements	0.77
Total	**0.89**

Sekaran (1992) mentioned that if the reliability value is at least 0.6, it is considered reliable. As the result of reliability analysis from collected 400 samples, questionnaires in this research still be sufficient for examining the relationship between brand value and brand equity of NOKIA product in Bangkok because Coefficient's Alpha Scale of this study is greater than 0.6 (0.89>0.60).

5.2 HYPOTHESIS TESTING

This study deeply investigates to assess brand value created by brand equity. The researcher examines sixteen hypotheses for supporting research objectives. The researcher classifies two groups. The first group includes seven hypotheses, measured the relationship between brand value and brand equity ($H0_1$), and the relationship

between the elements of brand value and the dimensions of brand equity ($H0_2$-$H0_7$), will be evaluated by using correlation coefficient test. Another group includes nine hypotheses that focuses on influencing selected marketing mix elements on the dimensions of brand equity ($H0_8$-$H0_{16}$). These will be analyzed by using correlation coefficient test. These hypotheses are as following:

Group I:

The Gap between Brand Value and Customer Value

Hypothesis 1:

$H0_1$: There is no relationship between brand value and brand equity.

$H1_1$: There is a relationship between brand value and brand equity.

Table 5.6: The Analysis of Relationship between Brand Value and Brand Equity Using Correlation Coefficient

Correlations

		BE	BV
BE	Pearson Correlation	1.000	.610**
	Sig. (2-tailed)	.	.000
	N	400	400
BV	Pearson Correlation	.610**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level

The Pearson correlation analysis shown in Table 5.6 indicated that there was a statistically significant difference in correlation between brand value and brand equity of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between brand value and brand equity at the 0.01 significant level.

For the Pearson correlation at the 0.610, it means that brand value and brand equity of NOKIA mobile phone have a positive relationship at the 0.610 or 61.0 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 2:

$H0_2$: There is no relationship between perceived quality and price premium.

$H1_2$: There is a relationship between perceived quality and price premium.

Table 5.7: The Analysis of Relationship between Perceived Quality and Price Premium Using Correlation Coefficient

Correlations

		SUMPP	SUMPQ
SUMPP	Pearson Correlation	1.000	.402**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMPQ	Pearson Correlation	.402**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.7 indicated that there was a statistically significant difference in correlation between perceived quality and price premium of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between perceived quality and price premium at the 0.01 significant level.

For the Pearson correlation at the 0.402, it means that perceived quality and price premium of NOKIA mobile phone have a positive relationship at the 0.402 or 40.2 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 3:

$H0_3$: There is no relationship between perceived quality and brand extensions.

$H1_3$: There is a relationship between perceived quality and brand extensions.

Table 5.8: The Analysis of Relationship between Perceived Quality and Brand Extensions Using Correlation Coefficient

Correlations

		SUMBX	SUMPQ
SUMBX	Pearson Correlation	1.000	.393**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMPQ	Pearson Correlation	.393**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.8 indicated that there was a statistically significant difference in correlation between brand extensions and perceived quality of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between brand extensions and perceived quality at the 0.01 significant level.

For the Pearson correlation at the 0.393, it means that brand extensions and perceived quality of NOKIA mobile phone have a positive relationship at the 0.393 or 39.3 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 4:

$H0_4$: There is no relationship between brand loyalty and price premium.

$H1_4$: There is a relationship between brand loyalty and price premium.

Table 5.9: The Analysis of Relationship between Brand Loyalty and Price Premium Using Correlation Coefficient

Correlations

		SUMPP	SUMBL
SUMPP	Pearson Correlation	1.000	.488**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMBL	Pearson Correlation	.488**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.9 indicated that there was a statistically significant difference in correlation between brand loyalty and price premium of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between brand loyalty and price premium at the 0.01 significant level.

For the Pearson correlation at the 0.488, it means that brand loyalty and price premium of NOKIA mobile phone have a positive relationship at the 0.488 or 48.8 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 5:

$H0_5$: There is no relationship between brand loyalty and brand extensions.

$H1_5$: There is a relationship between brand loyalty and brand extensions.

Table 5.10: The Analysis of Relationship between Brand Loyalty and Brand Extensions Using Correlation Coefficient

Correlations

		SUMBX	SUMBL
SUMBX	Pearson Correlation	1.000	.326**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMBL	Pearson Correlation	.326**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.10 indicated that there was a statistically significant difference in correlation between brand extensions and brand loyalty of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 > 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between brand extensions and brand loyalty at the 0.01 significant level.

For the Pearson correlation at the 0.326, it means that brand extensions and brand loyalty of NOKIA mobile phone have a positive relationship at the 0.326 or 32.6 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 6:

$H0_6$: There is no relationship between brand awareness/associations and price premium.

$H1_6$: There is a relationship between brand awareness/associations and price premium.

Table 5.11: The Analysis of Relationship between Brand Awareness/Associations and Price Premium Using Correlation Coefficient

Correlations

		SUMPP	SUMBA
SUMPP	Pearson Correlation	1.000	.251**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMBA	Pearson Correlation	.251**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.11 indicated that there was a statistically significant difference in correlation between price premium and brand awareness/associations of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between price premium and brand awareness /associations at the 0.01 significant level.

For the Pearson correlation at the 0.251, it means that price premium and brand awareness/associations of NOKIA mobile phone have a positive relationship at the 0.251 or 25.1 percent at the 99 confident level.

Group I:

The Relationship between Elements of Brand Value and Dimensions of Brand Equity

Hypothesis 7:

$H0_7$: There is no relationship between brand awareness/associations and brand extensions.

$H1_7$: There is a relationship between brand awareness/associations and brand extensions.

Table 5.12: The Analysis of Relationship between Brand Awareness/Associations and Brand Extensions Using Correlation Coefficient

Correlations

		SUMBX	SUMBA
SUMBX	Pearson Correlation	1.000	.450**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMBA	Pearson Correlation	.450**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.12 indicated that there was a statistically significant difference in correlation between brand extensions and brand awareness/associations of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between brand extensions and brand awareness/associations at the 0.01 significant level.

For the Pearson correlation at the 0.450, it means that brand extensions and brand awareness/associations of NOKIA mobile phone have a positive relationship at the 0.450 or 45.0 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 8:

$H0_8$: There is no relationship between distribution intensity and perceived quality.

$H1_8$: There is a relationship between distribution intensity and perceived quality.

Table 5.13: The Analysis of Relationship between Distribution Intensity and Perceived Quality Using Correlation Coefficient

Correlations

		SUMPQ	SUMDI
SUMPQ	Pearson Correlation	1.000	.441**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMDI	Pearson Correlation	.441**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.13 indicated that there was a statistically significant difference in correlation between distribution intensity and perceived quality of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between distribution intensity and perceived quality at the 0.01 significant level.

For the Pearson correlation at the 0.441, it means that distribution intensity and perceived quality of NOKIA mobile phone have a positive relationship at the 0.441 or 44.1 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 9:

$H0_9$: There is no relationship between distribution intensity and brand loyalty.

$H1_9$: There is a relationship between distribution intensity and brand loyalty.

Table 5.14: The Analysis of Relationship between Distribution Intensity and Brand Loyalty Using Correlation Coefficient

Correlations

		SUMBL	SUMDI
SUMBL	Pearson Correlation	1.000	.401**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMDI	Pearson Correlation	.401**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.14 indicated that there was a statistically significant difference in correlation between distribution intensity and brand loyalty of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between distribution intensity and brand loyalty at the 0.01 significant level.

For the Pearson correlation at the 0.401, it means that distribution intensity and brand loyalty of NOKIA mobile phone have a positive relationship at the 0.401 or 40.1 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 10:

$H0_{10}$: There is no relationship between distribution intensity and brand awareness /associations.

$H1_{10}$: There is a relationship between distribution intensity and brand awareness /associations.

Table 5.15: The Analysis of Relationship between Distribution Intensity and Brand Awareness/Associations Using Correlation Coefficient

Correlations

		SUMBA	SUMDI
SUMBA	Pearson Correlation	1.000	.463**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMDI	Pearson Correlation	.463**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.15 indicated that there was a statistically significant difference in correlation between distribution intensity and brand awareness/associations of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between distribution intensity and brand awareness/associations at the 0.01 significant level.

For the Pearson correlation at the 0.463, it means that distribution intensity and brand awareness/associations of NOKIA mobile phone have a positive relationship at the 0.463 or 46.3 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 11:

$H0_{11}$: There is no relationship between price and perceived quality.

$H1_{11}$: There is a relationship between price and perceived quality.

Table 5.16: The Analysis of Relationship between Price and Perceived Quality Using Correlation Coefficient

Correlations

		SUMPQ	SUMPR
SUMPQ	Pearson Correlation	1.000	.429**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMPR	Pearson Correlation	.429**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.16 indicated that there was a statistically significant difference in correlation between perceived quality and price of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between perceived quality and price at the 0.01 significant level.

For the Pearson correlation at the 0.429, it means that perceived quality and price of NOKIA mobile phone have a positive relationship at the 0.429 or 42.9 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 12:

$H0_{12}$: There is no relationship between store image and perceived quality.

$H1_{12}$: There is a relationship between store image and perceived quality.

Table 5.17: The Analysis of Relationship between Store Image and Perceived Quality Using Correlation Coefficient

Correlations

		SUMPQ	SUMSI
SUMPQ	Pearson Correlation	1.000	.441**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMSI	Pearson Correlation	.441**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.17 indicated that there was a statistically significant difference in correlation between perceived quality and store image of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between perceived quality and store image at the 0.01 significant level.

For the Pearson correlation at the 0.441, it means that perceived quality and store image of NOKIA mobile phone have a positive relationship at the 0.441 or 44.1 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 13:

$H0_{13}$: There is no relationship between store image and brand awareness/associations.

$H1_{13}$: There is a relationship between store image and brand awareness/associations.

Table 5.18: The Analysis of Relationship between Store Image and Brand Awareness /Associations Using Correlation Coefficient

Correlations

		SUMBA	SUMSI
SUMBA	Pearson Correlation	1.000	.436**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMSI	Pearson Correlation	.436**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.18 indicated that there was a statistically significant difference in correlation between brand awareness/associations and store image of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between brand awareness/associations and store image at the 0.01 significant level.

For the Pearson correlation at the 0.436, it means that brand awareness /associations and store image of NOKIA mobile phone have a positive relationship at the 0.436 or 43.6 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 14:

$H0_{14}$: There is no relationship between advertising and perceived quality.

$H1_{14}$: There is a relationship between advertising and perceived quality.

Table 5.19: The Analysis of Relationship between Advertising and Perceived Quality Using Correlation Coefficient

Correlations

		SUMPQ	SUMAD
SUMPQ	Pearson Correlation	1.000	.475**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMAD	Pearson Correlation	.475**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.19 indicated that there was a statistically significant difference in correlation between perceived quality and advertising of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 ($0.000 < 0.01$). Therefore, the null hypothesis was rejected which means that there is a relationship between perceived quality and advertising at the 0.01 significant level.

For the Pearson correlation at the 0.475, it means that perceived quality and advertising of NOKIA mobile phone have a positive relationship at the 0.475 or 47.5 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 15:

$H0_{15}$: There is no relationship between advertising and brand loyalty.

$H1_{15}$: There is a relationship between advertising and brand loyalty.

Table 5.20: The Analysis of Relationship between Advertising and Brand Loyalty Using Correlation Coefficient

Correlations

		SUMBL	SUMAD
SUMBL	Pearson Correlation	1.000	.440**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMAD	Pearson Correlation	.440**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.20 indicated that there was a statistically significant difference in correlation between brand loyalty and advertising of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between brand loyalty and advertising at the 0.01 significant level.

For the Pearson correlation at the 0.440, it means that brand loyalty and advertising of NOKIA mobile phone have a positive relationship at the 0.440 or 44.0 percent at the 99 confident level.

Group II:

The Relationship between Dimensions of Brand Equity and Marketing Mix Elements

Hypothesis 16:

$H0_{16}$: There is no relationship between advertising and brand awareness/associations.

$H1_{16}$: There is a relationship between advertising and brand awareness/associations.

Table 5.21: The Analysis of Relationship between Advertising Brand and Awareness /Associations Using Correlation Coefficient

Correlations

		SUMBA	SUMAD
SUMBA	Pearson Correlation	1.000	.585**
	Sig. (2-tailed)	.	.000
	N	400	400
SUMAD	Pearson Correlation	.585**	1.000
	Sig. (2-tailed)	.000	.
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis shown in Table 5.21 indicated that there was a statistically significant difference in correlation between brand awareness/associations and advertising of NOKIA mobile phone with a 2-tailed significance of 0.000, which was less than 0.01 (0.000 < 0.01). Therefore, the null hypothesis was rejected which means that there is a relationship between brand awareness/associations and advertising at the 0.01 significant level.

For the Pearson correlation at the 0.585, it means that brand awareness /associations and advertising of NOKIA mobile phone have a positive relationship at the 0.585 or 58.5 percent at the 99 confident level.

Summary of Results from Hypotheses Testing

From Table 5.22, the summary of results from hypotheses testing is exhibited. There are sixteen hypotheses including $H0_1$ to $H0_{16}$, which are statistically significant difference in correlation with a 2-tailed significance of 0.000, which are less than 0.01 ($0.000 < 0.01$). Therefore, the sixteen null hypotheses are rejected which means that there are relationships among variables at the 0.01 significant level.

Table 5.22: Summary of Results from Hypotheses Testing

Hypothesis	Significance	Results
$H0_1$: There is no relationship between brand value and brand equity.	.000	Rejected
$H0_2$: There is no relationship between perceived quality and price premium.	.000	Rejected
$H0_3$: There is no relationship between perceived quality and brand extensions.	.000	Rejected
$H0_4$: There is no relationship between brand loyalty and price premium.	.000	Rejected
$H0_5$: There is no relationship between brand loyalty and brand extensions.	.000	Rejected
$H0_6$: There is no relationship between brand awareness /association and price premium.	.000	Rejected
$H0_7$: There is no relationship between brand awareness /association and brand extensions.	.000	Rejected
$H0_8$: There is no relationship between distribution intensity and perceived quality.	.000	Rejected
$H0_9$: There is no relationship between distribution intensity and brand loyalty.	.000	Rejected
$H0_{10}$: There is no relationship between distribution intensity and brand awareness/associations.	.000	Rejected
$H0_{11}$: There is no relationship between price and perceived quality.	.000	Rejected
$H0_{12}$: There is no relationship between store image and perceived quality.	.000	Rejected
$H0_{13}$: There is no relationship between store image and brand awareness/associations.	.000	Rejected
$H0_{14}$: There is no relationship between advertising and perceived quality.	.000	Rejected
$H0_{15}$: There is no relationship between advertising and brand loyalty.	.000	Rejected
$H0_{16}$: There is no relationship between advertising and brand awareness/associations.	.000	Rejected

Chapter VI

Summary, Conclusions and Recommendations

In this chapter, the finding of the socioeconomic characteristics and the sixteen hypotheses are discussed. All of hypotheses are rejected as supported by other prior researches. In addition, the first part is summary of findings including socioeconomic characteristics and hypotheses testing. The second part is the conclusion of hypotheses. The third part discusses the recommendations, and the last part is the suggestion for further study.

6.1 Summary Of Findings

In summary, this research objective is to investigate brand value created by brand equity that is influenced by selected marketing mix elements. The researcher chooses NOKIA brand as product category in testing hypothesis by using the questionnaire to collect data from 400 samples in Bangkok area. Furthermore, this part classifies in two sections. The summary of socioeconomic characteristics is one, and another is the summary of the sixteen hypotheses testing.

Summary of Socioeconomic Characteristics

The result of statistic analysis of respondents' perception through NOKIA brand was analyzed by descriptive analysis.

The gender of respondents mostly feels the same perception through distribution intensity, store image, advertising, brand loyalty, brand awareness/associations, overall of brand equity, price premium, and brand extensions. Firstly, there is a different on price a little bit between males and females, which females focus on price rather than another. Secondly, there is a different on perceived quality, which females can perceive through the quality of NOKIA rather than males and finally, on brand

value, because females would more expect in hearing a new model of NOKIA than males.

Any rank of age of respondents feels the same perception through distribution intensity, price, brand equity and its dimensions, and brand value and its elements, whereas there are different in some rank of age on store image and advertising.

Any group of education levels of respondents feels the same perception through price, advertising, brand equity and its dimensions, and brand value and its elements. However, there are different in some group of education levels on distribution intensity and store image.

Any group of occupation of respondents feels the same perception through price, and brand equity and its dimensions. However, there are different in some group of occupation on distribution intensity, store image, advertising, and brand value and its elements, especially, student group.

The rank of income levels of respondents feels the same perception through distribution intensity, price, advertising, and brand equity and its dimensions. However, there are different in some rank of income levels on store image, especially, student group, and brand value and its elements, especially, 40,000 baht or more.

Summary of Hypotheses Testing

The first hypothesis (H_{01}) tested by using the correlation coefficient is concluded that there is a relationship between brand value and brand equity. For the correlation at the 0.610 or 61.0 percent (Table 5.6), it means that brand value and brand equity have a positive strong relationship (Table 4.3).

The second hypothesis (H_{02}) tested by using the correlation coefficient is concluded that there is a relationship between perceived quality and price premium. For the correlation at the 0.402 or 40.2 percent (Table 5.7), it means that perceived quality and price premium have a positive moderate relationship (Table 4.3). Aaker

and Keller (1990) found that a perceived quality advantage provides the option of charging a premium price. The price premium could increase profits and/or provide resources with which to reinvest in the brand.

The third hypothesis (H_{03}) tested by using the correlation coefficient is concluded that there is a relationship between perceived quality and brand extensions. For the correlation at the 0.393 or 39.3 percent (Table 5.8), it means that perceived quality and brand extensions have a positive weak relationship (Table 4.3). Dacin and Smith (1994); Reddy, Holak, and Bhat (1994) found that the perceived quality could be exploited by introducing brand extensions, using the brand name to enter new product categories. A strong brand with respect to perceived quality will be able to extend further, and will find a higher success probability than a weaker brand. A study of 18 proposed extensions of six brand names found that perceived quality of the brand name was a significant predictor of evaluation of the extensions.

The fourth hypothesis (H_{04}) tested by using the correlation coefficient is concluded that there is a relationship between brand loyalty and price premium. For the correlation at the 0.488 or 48.8 percent (Table 5.9), it means that brand loyalty and price premium have a positive moderate relationship (Table 4.3).

The fifth hypothesis (H_{05}) tested by using the correlation coefficient is concluded that there is a relationship between brand loyalty and brand extensions. For the correlation at the 0.326 or 32.6 percent (Table 5.10), it means that brand loyalty and brand extensions have a positive weak relationship (Table 4.3).

From hypotheses testing of H_{04} and H_{05}, the results are similar the previous study proposed by Alsop (1986) and Reichheld (1990) investigate that regular surveys of customer satisfaction/dissatisfaction are particularly useful in understanding hoe existing customers feel and in adjusting products and services. Therefore, satisfied customers will loyal on brand name and willing to pay more as premium to a brand.

Further, satisfied customers will buy a new line extension or a sub-brand of a loyal-brand (Dacin and Smith, 1994).

The sixth hypothesis (H_{06}) tested by using the correlation coefficient is concluded that there is a relationship between brand awareness/associations and price premium. For the correlation at the 0.251 or 25.1 percent (Table 5.11), it means that brand awareness/associations and price premium have a positive weak relationship (Table 4.3). Axelord (1985) claims that an association creates the key to understanding preference. It involves learning how a brand or product differed from other brands or products. From this proposal, it could be that a perceived difference between brands is the color of package. Few respondents would say that the attractive package is important to their purchasing decisions.

The seventh hypothesis (H_{07}) tested by using the correlation coefficient is concluded that there is a relationship between brand awareness/associations and brand extensions. For the correlation at the 0.450 or 45.0 percent (Table 5.12), it means that brand awareness/associations and brand extensions have a positive moderate relationship (Table 4.3). Alba and Hutchinson (1987) find that an association can provide the basis for an extension by creating a sense of fit between brand name and a new product, or providing a reason to buy the extension.

The eighth hypothesis (H_{08}) tested by using the correlation coefficient is concluded that there is a relationship between distribution intensity and perceived quality. For the correlation at the 0.441 or 44.1 percent (Table 5.13), it means that distribution intensity and perceived quality have a positive moderate relationship (Table 4.3).

The ninth hypothesis (H_{09}) tested by using the correlation coefficient is concluded that there is a relationship between distribution intensity and brand loyalty.

For the correlation at the 0.401 or 40.1 percent (Table 5.14), it means that distribution intensity and brand loyalty have a positive moderate relationship (Table 4.3).

The tenth hypothesis (H_{010}) tested by using the correlation coefficient is concluded that there is a relationship between distribution intensity and brand awareness/associations. For the correlation at the 0.463 or 46.3 percent (Table 5.15), it means that distribution intensity and brand awareness/associations have a positive moderate relationship (Table 4.3).

As the result of H_{08}-H_{010}, it shows that distribution is intensive when products are placed in a large number of stores to cover the market. To enhance a product's image and get substantial retailer support, firms tend to distribute exclusively or selectively rather than intensively. It has also been argued that certain types of distribution fit certain types of products. Consumers will be more satisfied, however, when a product is available in a greater number of stores because they will be offered the product where and when they want it (Ferris, Oliver, and Kluyver, 1989; Smith, 1992). Intensive distribution reduces the time consumers must spend searching the stores and traveling to and from the stores, provides convenience in purchasing, and makes it easier to get services related to the product. As distribution intensity increases, therefore, consumers have more time and place utility and perceive more value for the product. The increased value results mostly from the reduction of the sacrifices the consumer must make to acquire the product. Such increased value leads to greater consumer satisfaction, perceived quality, and brand loyalty and consequently, greater brand equity. Accordingly, positive brand associations will increase along with a consumer's satisfaction with the product.

The eleventh hypothesis (H_{011}) tested by using the correlation coefficient is concluded that there is a relationship between perceived quality and price. For the correlation at the 0.429 or 42.9 percent (Table 5.16), it means that perceived quality

and price have a positive moderate relationship (Table 4.3). The hypothesis mentioned is supported by Blattberg and Winniewski (1989); Didds, Monroe, and Grewal (1991); Kamakura and Russell (1993); Milgrom and Roberts (1986); Olson (1977). They defined that consumers use price as an important extrinsic cue and indicator of product quality or benefits. High and less vulnerable to competitive price cuts than low-priced brands. Therefore, price is positively related to perceived quality. Rao and Monroe (1989) show that a positive relationship between price and perceived quality has been supported through pervious research. By increasing perceived quality, price is also related positively to brand equity. Although price implied high quality, it does not create loyalty to the brand per se. Neither loyal nor nonloyal consumer use price as an evaluative criterion of the product, and they are not influenced by price consideration (Helsen and Schmittlein, 1994; Meer, 1995). Brand-loyal consumers are willing to pay the full price for their favorite brand because they are less price sensitive than brand-nonloyal consumers are. Thus, changing the price level alone does not affect brand loyalty. Thaler (1985) researched the relationship between price and brand associations. As the result, the researcher find no directional relationship among them, because both low and high prices can be equally strongly linked to the brand in memory for benefits hat each brings to consumers. A low-priced product would give transaction utility, whereas a high-priced product would give high-quality image or acquisition utility, leading to reduce consumer risk.

The twelfth hypothesis (H_{012}) tested by using the correlation coefficient is concluded that there is a relationship between store image and perceived quality. For the correlation at the 0.441 or 44.1 percent (Table 5.17), it means that store image and perceived quality have a positive moderate relationship (Table 4.3).

The thirteenth hypothesis (H_{013}) tested by using the correlation coefficient is concluded that there is a relationship between store image and brand awareness

/associations. For the correlation at the 0.436 or 43.6 percent (Table 5.18), it means that store image and brand awareness/associations have a positive moderate relationship (Table 4.3).

From the hypotheses testing of H_{012} and H_{013}, it is illustrated that the importance of channel design and management as a marketing tool of increasing brand equity is growing (Srivastava and Shocker, 1991). In a distribution channel, retailers encounter a firm's ultimate consumers. Selecting and managing retailers is therefore a firm's major marketing task in satisfying consumer needs. In particular, distributing through good image stores signals that a brand is of good quality. Dodds, et al. (1991) found significant positive effects of store image on perceived quality. The store name is a vital extrinsic cue to perceived quality. The quality of a given brand is perceived differently depending on which retailer offers it. Customer traffic will be greater in a store with a good image than in one with a bad image. Good-image stores attract more attention, contacts, and visits from potential customers. In addition, such stores provide greater consumer satisfaction and stimulate active and positive word-of-mouth communications among consumers (Rao and Monroe, 1989; Zeithaml, 1988). Therefore, distribution a brand through an outlet with a good image will create more positive brand associations than distributing through an outlet with a bad image.

Store image appears to have no relationship with loyalty to a specific brand. Consumers perceive good store image when their self-concept is congruent with store image (Sirgy and Samli, 1985). Thus, if the store image does not match the perceived image of the product, consumers would not be impressed enough to show loyalty to the product. In other words, only when there is consistency between product and store images will consumers be loyal to the product that is available in the store.

The fourteenth hypothesis (H_{014}) tested by using the correlation coefficient is concluded that there is a relationship between advertising and perceived quality. For

the correlation at the 0.475 or 47.5 percent (Table 5.19), it means that advertising and perceived quality have a positive moderate relationship (Table 4.3).

The fifteenth hypothesis (H_{015}) tested by using the correlation coefficient is concluded that there is a relationship between advertising and brand loyalty. For the correlation at the 0.440 or 44.0 percent (Table 5.20), it means that advertising and brand loyalty have a positive moderate relationship (Table 4.3).

The sixteenth hypothesis (H_{016}) tested by using the correlation coefficient is concluded that there is a relationship between advertising and brand awareness /associations. For the correlation at the 0.585 or 58.5 percent (Table 5.21), it means that advertising and brand awareness/associations have a positive moderate relationship (Table 4.3).

The result of H_{014}-H_{016} is similar the previous study supported by advertising researchers found advertising is successful in generation brand equity, whereas sales promotion is unsuccessful (Boulding, Lee, and Staelin, 1994; Chay and Tellis, 1991; Johnson, 1984; Lindsay, 1989; Maxweli, 1989). Simon and Sullivan (1993) found a positive effect of advertising spending on brand equity. Cobb-Walgren, Beal, and Donthu (1995) found that the dollar amount spent on advertising has positive affected on brand equity and its dimensions.

Advertising is an important extrinsic cue signaling product quality (Milgrom and Roberts, 1986). Heavy advertising spending shows that the firm is investing in the brand, which implies superior quality (Kirmani and Wright, 1989). In addition, Archibald, Haulman, and Moody (1983) find that advertising spending levels are good indicators of not only high quality but also good buys. Aaker and Jacobson (1994) also find a positive relationship between advertising and perceived quality. Hence, advertising spending is positively related to perceived quality, which leads to higher brand equity.

Advertising plays a pivotal role in increasing brand awareness as well as creation strong brand associations. Repetitive advertising schedules increase the probability that a brand will be included in the consideration set, which simplifies the consumer's brand choice, making it a habit to choose the brand (Hauser and Wernerfeldt, 1990). Thus, a greater amount of advertising is related positively to brand awareness and associations, which leads to greater brand equity. In addition, according to an extended hierarchy of effects model, advertising is positively related to brand loyalty because it reinforces brand-related associations and attitudes toward the brand (Shimp, 1997).

6.2 CONCLUSIONS

From summary of finding of this research, it can be implied that advertising ranked number one compared among marketing mix elements (Table 5.4). It means that advertising campaign of NOKIA is very well, whereas most of respondents feel that price of NOKIA (4th rank) is expensive. A successful of advertising campaign and distribution intensity of NOKIA enhance strongly brand awareness/associations and perceived quality respectively (Table 5.3). Although the perception of the respondents through brand loyalty is less than among dimensions of brand equity, but the respondents still agree 59.3 percent for selected NOKIA in their first choice, 38.0 percent for preferring to buy NOKIA compared another brand and 40.0 percent for next purchase. Hypothesis analysis of the relationship between the elements of brand value and dimensions of brand equity, it shows that brand awareness/associations has a few effect to price premium, whereas perceived quality and brand loyalty charge directly a higher price and satisfied customers are willing to pay premium price (Yoo, Donthu and lee; 2000). On the other hand, perceived quality and brand loyalty are weak related to create brand extensions, whereas the attraction of levering the brand

name and product-attributed, brand awareness /associations, is powerful in purchase decision based on a limited number of products. The relationship between brand equity and brand value is very strong, because sub-elements of brand value are price premium and brand extensions that are significant benefit of a brand to generate financial value.

Creating brand equity, that is, building strong brand, is a successful strategy for differentiating a product from competing brands (Aaker, 1991). Brand equity provides sustainable competitive advantages because it creates meaningful competitive barriers. Brand equity is developed through enhanced perceived quality, brand loyalty, and brand awareness/associations, which can not be either built or destroyed in the short run but can be created only in the long run through carefully designed brand value. Thus, brand equity is durable and sustainable, and a product with strong brand equity is a valuable asset to a firm. This study shows the importance and roles of various marketing mix elements in building strong brand equity. To enhance the strength of a brand, marketers must invest in advertising, distribute through retail stores with good images, increase distribution intensity. As for price, high brand equity may allow a company to charge a higher price because customers are willing to pay premium prices. Finally, high brand equity implies that customers have a lot of positive a strong associations related to the brand, perceived the brand is of high quality, and are loyal to the brand. These are the positive potential benefit that the firm will gain economic value (brand value) in the future.

6.3 RECOMMENDATIONS

The result of hypotheses testing of this study supports the proposal of Knox and Maklan (1998). Brand equity is strongly influenced in creating brand value (Table 5.6). Dimensions of brand equity including perceived quality, brand loyalty, and brand awareness/associations are also related the elements of brand value (price premium and brand extensions). However, some of hypotheses testing among them showed the weak relationship. Perceived quality and brand loyalty are weak related to create brand extensions, and brand awareness/associations is also weak related to create price premium. Then, brand loyalty as the heart of brand equity of NOKIA brand showed the least level among dimensions of brand equity. It means that NOKIA will face the switching brand to competing brand in the future. NOKIA is now very successful in building brand awareness/associations. Therefore, NOKIA must firstly enhance perceived quality to support brand loyalty in customer perception by setting up NOKIA professional centers and NOKIA professional dealers in Thailand to offer the same service standard, to make customers relationship, and to enhance marketing mix activities as follow:

Distribution intensity

NOKIA products are now placed in a large number of stores to cover the market in Thailand. Making a product available in more stores affords convenience, creating time-savings, speedy service, and service accessibility, thus increasing customer satisfaction. If customer can not perceive them, it will destroy relationship between NOKIA and customers. Therefore, NOKIA professional centers and dealers are established in Thailand to ensure that customers can receive service quality in the same standard which they can increase perceived quality and brand loyalty in customer-mind.

Price

Price has been used as a major positioning tool to differentiate a product. According to the concept of value pricing, lowering the price increases the value of the product, creation a perception of savings (Dodds, et al., 1991; Zeithaml, 1988). However, brand equity may decrease when customers strongly relate price to product quality and use price as a proxy for the quality as the case of NOKIA. Customers may perceive that a lower price is made by cutting costs and product quality to maintain profit margins. If possible, NOKIA should avoid frequent price cuts or a consistent low-price strategy (e.g., everyday low price) because they lower perceived quality and product image, while maintaining the price level. Therefore, established NOKIA professional centers and dealers can support customer service to enhance the value of the product.

Store image

NOKIA should distribute products through quality vendors that have a good image by setting up NOKIA professional dealers. Customers mostly infer the quality of products from the image and reputation of the store. Similar to price, retail reputation is an important signal of product quality (Dawar and Parker, 1994; Grewal, Krishnan, Baker, and Borin, 1998). After customers perceived the quality of product, word of mouth and the store's promotional activity will enhance brand associations. Therefore, selection good image stores as product vendors builds strong brand equity.

Advertising

The hierarchy of effects model has shown that customers tend to believe advertising statements and envision the product's likely performance on the basis of the claims (Richins, 1995). Hence, as customers are exposed to a brand's advertising more frequently, they develop not only higher brand awareness and associations but also a more positive perception of brand quality, which leads to strong brand equity.

One of the major reasons for a decrease in customer loyalty is the decrease in advertising spending. By reinforcing the customer's brand-related beliefs and attitudes, advertising contributes to strong brand loyalty (Shimp, 1997). Brand image is complicated, based on multiple experiences, facts, episodes, and exposures to brand information, and therefore take a long time to develop. Advertising is a common way to develop, to shape and to manage that image. NOKIA should invest in advertising with image and a clear objective to increase brand equity.

From above activities, NOKIA will make strong brand building and customer relationship. Enhanced continuously perceived quality, brand loyalty, and brand awareness/associations is a significant way to build strong brand equity. Higher perceived quality gives customers a good reason to buy the product. Higher brand loyalty is a vehicle in forging stable relationships between customers and NOKIA. Well-known brand is also capable of developing favorable attitudes and perceptions more easily, again leading to more sales. As the result, dimensions of brand equity can keep existing customers and attract new customers. Therefore, price premium and brand extensions will be more successful and increase financial value for NOKIA.

6.4 FURTHER STUDY

A very important further research issue is the interaction effect of brand equity dimensions on brand equity. To check this possibility empirically, researchers need to consider the model between the group of nonexperiencers and the model among groups of different brand loyalty levels distinguished by the behavioral pattern of repurchase records.

In addition, more dynamic interactions between brand equity and its consequences need to be investigated, because although brand equity is a product of marketing mix efforts, brand equity may be augmented at the same time as a result of

customer value that resulted from previous brand equity. Past value to customers, for example, enhances brand loyalty, thereby leading to higher brand equity. On the basic of the information economics and market signaling theory, Swait and colleagues (1993) suggest that a product of high brand equity signals high quality when the customer imperfectly observes product attributes. The positive signal brings value for the customer, as Aaker (1991) proposes. In summary, brand equity and its consequences are likely to have reciprocal relationships by affecting one another. Longitudinal analysis may be helpful to reveal such dynamic relationships.

The role of brand equity in the firm's success also needs to be studied. Brand equity may generate value not only to the firm and the customer but also to the employee, the shareholder, and management because it is the only common integration factor with which the organization can succeed (Schultz, 1998). When every strategy and business decision is made to enhance brand equity, all stakeholders are likely to win. This stream of thought needs to be further elaborated. Finally, a major conceptual limitation model tests only a few marketing efforts including distribution intensity, price, store image, and advertising. The future study to examine more marketing mix elements, such as, price deals and sponsorship.

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Appendix A

Questionnaires

QUESTIONNAIRE TO CREATE BRAND VALUE BY BRAND EQUITY

This questionnaire is a partial of fulfillment of the requirements for the Degree of Master of Business Administration Assumption University.

Please indicate your opinion as to extent to which you agree or disagree with the following statements of your perception on both brand value and customer value of NOKIA brand. Remember that there are no right or wrong answers - researcher is interested in the numbers that show your perception toward NOKIA brand in Bangkok.

Strongly Disagree (SD)	1
Disagree (DA)	2
Neutral (N)	3
Agree (AG)	4
Strongly Agree (SA)	5

	SD	DA	N	AG	SA	
Part I: Brand Value						
Price Premium						
1) I would prefer prices of NOKIA.	1	2	3	4	5	PP1 [ ]
2) If other brand mobiles would have to cost 20 percent less than NOKIA before I would not switch brands.	1	2	3	4	5	PP2 [ ]
3) Considering the price related to quality, I would rate the overall value of NOKIA.	1	2	3	4	5	PP3 [ ]
Brand Extensions						
4) I would expect to see a new series from NOKIA.	1	2	3	4	5	BX1 [ ]
5) My first impression in hearing that NOKIA is introducing a new model.	1	2	3	4	5	BX2 [ ]
6) I love to trial a new series of NOKIA.	1	2	3	4	5	BX3 [ ]
Part II: Brand Equity						
Perceived Quality						
7) NOKIA is of high quality.	1	2	3	4	5	PQ1 [ ]
8) The quality of NOKIA has been improved continuously over the last several years.	1	2	3	4	5	PQ2 [ ]
9) NOKIA is respected for innovation.	1	2	3	4	5	PQ3 [ ]
Brand Loyalty						
10) NOKIA would be my first choice.	1	2	3	4	5	BL1 [ ]
11) If there is another brand as good as NOKIA, I prefer to buy NOKIA.	1	2	3	4	5	BL2 [ ]
12) I will buy NOKIA on next purchase.	1	2	3	4	5	BL3 [ ]
Brand Awareness/Associations						
13) I have consistently heard or seen of NOKIA brand.	1	2	3	4	5	BA1 [ ]
14) I can quickly recall the symbol or logo of NOKIA.	1	2	3	4	5	BA2 [ ]
15) NOKIA is different from other brands.	1	2	3	4	5	BA3 [ ]

Part III: Marketing Mix Elements

Distribution Intensity						
16) More stores sell NOKIA, as compared to its competing brands.	1	2	3	4	5	DI1 [ ]
17) The number of stores that deal with NOKIA is more than that of its competing brands.	1	2	3	4	5	DI2 [ ]
18) NOKIA is distributed through as many stores as possible.	1	2	3	4	5	DI3 [ ]
Price						
19) Over time, NOKIA has consistently offered me better price value for its products/services.	1	2	3	4	5	PR1 [ ]
20) At the price shown, I would consider buying NOKIA.	1	2	3	4	5	PR2 [ ]
21) NOKIA is expensive.	1	2	3	4	5	PR3 [ ]
Store Image						
22) The stores where I can buy NOKIA carry products of high quality.	1	2	3	4	5	SI1 [ ]
23) The stores where I can buy NOKIA would be of high quality.	1	2	3	4	5	SI2 [ ]
24) The stores where I can buy NOKIA have well-known brand.	1	2	3	4	5	SI3 [ ]
Advertising						
25) When I view the NOKIA's ad, I can visualize the wonderful emotional experience I will have using NOKIA.	1	2	3	4	5	AD1 [ ]
26) The ad campaigns for NOKIA seem very expensive, compared to campaign for competing brands.	1	2	3	4	5	AD2 [ ]
27) The ad campaigns for NOKIA are seen frequently.	1	2	3	4	5	AD3 [ ]

Part IV: Personal Data

1) Gender
   ☐ Male ☐ Female

2) Marital Status
   ☐ Single ☐ Married ☐Divorced/Widowed

3) Age
   ☐ 20 or less ☐ 21 – 30 year ☐ 31 – 40 year ☐ 41 – 50 year
   ☐ 51 or more

4) Highest education level
   ☐ High school graduate or less ☐ Diploma degree
   ☐ Bachelor degree ☐ Master degree ☐ Doctoral degree

5) Your occupation category
   ☐ Student ☐ Employee ☐ Management ☐ Government
   ☐ Self employed ☐ other(.....)

6) Your income per month (Baht)
   ☐ 10,000 or less ☐ 10,001 – 20,000 ☐ 20,001 – 30,000 ☐ 30,001 –40,000
   ☐ 40,001 or more

Thank you for your kindness to respond this questionnaire

QUESTIONNAIRE TO CREATE BRAND VALUE BY BRAND EQUITY

แบบสอบถามนี้เป็นส่วนหนึ่งของวิทยานิพนธ์ระดับมหาบัณฑิต มหาวิทยาลัยอัสสัมชัญ (ABAC)

กรุณา O บนหมายเลขตามความคิดเห็นของท่านว่า เห็นด้วยหรือไม่เห็นด้วย กับข้อความต่อไปนี้ เกี่ยวกับความคิด/ความรู้สึกที่ท่านมีต่อ NOKIA ไม่มีคำตอบที่ถูกหรือผิด ผู้วิจัยต้องการทราบความคิดเห็น/ความรู้สึกของผู้ตอบแบบสอบถามเกี่ยวกับ NOKIA เท่านั้น

ไม่เห็นด้วยอย่างยิ่ง (SD)	1
ไม่เห็นด้วย (DA)	2
เฉย ๆ (N)	3
เห็นด้วย (AG)	4
เห็นด้วยอย่างยิ่ง (SA)	5

	SD	DA	N	AG	SA	
ส่วนที่ 1: Brand Value						
Price Premium						
1) ข้าพเจ้าคิดว่าราคามือถือ NOKIA แต่ละรุ่น มีความเหมาะสม	1	2	3	4	5	PP1 [ ]
2) ถ้ามือถือยี่ห้ออื่น (ในราคาระดับเดียวกัน เช่น ERICSSON MOTOROLA หรือ SIEMENS ...) ตั้งราคาต่ำกว่ามือถือ NOKIA 20 เปอร์เซ็นต์ ข้าพเจ้าจะไม่เปลี่ยนไปซื้อมือถือยี่ห้อเหล่านั้น	1	2	3	4	5	PP2 [ ]
3) ถ้าเทียบราคาต่อคุณภาพ ข้าพเจ้าคิดว่ามือถือ NOKIA มีความคุ้มค่ามากที่สุด	1	2	3	4	5	PP3 [ ]
Brand Extensions						
4) ข้าพเจ้าคาดหวังว่าจะได้เห็นมือถือ NOKIA รุ่นใหม่ๆ	1	2	3	4	5	BX1 [ ]
5) ข้าพเจ้ารู้สึกตื่นเต้นเมื่อได้ยินว่ามือถือ NOKIA จะแนะนำมือถือรุ่นใหม่	1	2	3	4	5	BX2 [ ]
6) ข้าพเจ้าอยากทดลองใช้มือถือ NOKIA รุ่นใหม่	1	2	3	4	5	BX3 [ ]
ส่วนที่ 2: Brand Equity						
Perceived Quality						
7) มือถือ NOKIA เป็นมือถือที่มีคุณภาพสูง	1	2	3	4	5	PQ1 [ ]
8) คุณภาพมือถือ NOKIA ได้รับการการพัฒนาอย่างต่อเนื่องในหลายปีที่ผ่านมา	1	2	3	4	5	PQ2 [ ]
9) มือถือ NOKIA เป็นผู้นำในด้านนวัตกรรมใหม่ๆ	1	2	3	4	5	PQ3 [ ]
Brand Loyalty						
10) มือถือ NOKIA เป็นตัวเลือกแรกในใจของข้าพเจ้า	1	2	3	4	5	BL1 [ ]
11) ถ้ามือถือยี่ห้ออื่นมีคุณภาพและคุณสมบัติดีเทียบเท่ามือถือ NOKIA ข้าพเจ้ายังคงซื้อมือถือ NOKIA	1	2	3	4	5	BL2 [ ]
12) ครั้งต่อไปที่จะซื้อมือถือ ข้าพเจ้าจะซื้อมือถือ NOKIA	1	2	3	4	5	BL3 [ ]

Brand Awareness/Associations

13) ข้าพเจ้าได้ยินและเห็นยี่ห้อ NOKIA อยู่เสมอ	1	2	3	4	5	BA1 [ ]
14) ข้าพเจ้าจำ LOGO ของ NOKIA ได้อย่างแม่นยำ	1	2	3	4	5	BA2 [ ]
15) มือถือ NOKIA มีรูปลักษณ์แตกต่างจากมือถือยี่ห้ออื่น	1	2	3	4	5	BA3 [ ]

ส่วนที่ 3: Marketing Mix Elements

Distribution Intensity

16) มีร้านค้ามากมายที่ขายมือถือ NOKIA เมื่อเทียบกับมือถือยี่ห้ออื่น	1	2	3	4	5	DI1 [ ]
17) จำนวนร้านค้าที่ติดต่อกับ NOKIA มีมากกว่ามือถือยี่ห้ออื่น	1	2	3	4	5	DI2 [ ]
18) มือถือ NOKIA มีจำหน่ายตามร้านค้ามากเท่าที่จะเป็นไปได้	1	2	3	4	5	DI3 [ ]

Price

19) จากที่ผ่านมามือถือ NOKIA มักนำเสนอความคุ้มค่าทางด้านราคา ผ่านทางสินค้าและบริการเสมอ	1	2	3	4	5	PR1 [ ]
20) จากราคาที่แสดงอยู่ ข้าพเจ้ายังคงซื้อมือถือ NOKIA	1	2	3	4	5	PR2 [ ]
21) มือถือ NOKIA เป็นมือถือราคาแพง	1	2	3	4	5	PP3 [ ]

Store Image

22) โชว์รูมของ NOKIA คือสถานที่ที่ข้าพเจ้าสามารถซื้อมือถือ NOKIA คุณภาพสูง	1	2	3	4	5	SI1 [ ]
23) โชว์รูมของ NOKIA คือสถานที่ที่ให้บริการที่มีคุณภาพและมาตรฐานสูง	1	2	3	4	5	SI2 [ ]
24) โชว์รูมของ NOKIA คือสถานที่ที่เป็นที่รู้จักและพบเห็นได้ง่าย	1	2	3	4	5	SI3 [ ]

Advertising

25) เมื่อข้าพเจ้าเห็นโฆษณาของ NOKIA ข้าพเจ้ามีความปรารถนาอยากลองใช้มือถือ NOKIA	1	2	3	4	5	AD1 [ ]
26) โฆษณาของ NOKIA แสดงถึงความมีคุณค่ามีราคาของมือถือ เมื่อเทียบกับโฆษณาของมือถือยี่ห้ออื่นๆ	1	2	3	4	5	AD2 [ ]
27) โฆษณาของ NOKIA สามารถพบเห็นได้บ่อยๆ	1	2	3	4	5	AD3 [ ]

ส่วนที่ 4: Personal Data

1) เพศ

☐ ชาย ☐ หญิง

2) สถานะภาพสมรส

☐ โสด ☐ สมรส ☐ หย่า

3) อายุ

☐ น้อยกว่า 20 ปี ☐ 21 – 30 ปี ☐ 31 – 40 ปี ☐ 41 – 50 ปี

☐ มากกว่า 51 ปี

4) ระดับการศึกษา

☐ ต่ำกว่ามัธยมปลาย ☐ วิชาชีพ ☐ ปริญญาตรี ☐ ปริญญาโท

☐ ปริญญาเอก

5) อาชีพ

☐ นักเรียน/นักศึกษา ☐ พนักงานบริษัท ☐ ผู้บริหาร/ผู้จัดการ ☐ ข้าราชการ/รัฐวิสาหกิจ
☐ เจ้าของกิจการ ☐ อื่นๆ (.....)

6) รายได้ต่อเดือน (บาท)

☐ ต่ำกว่า 10,000 ☐ 10,001 – 20,000 ☐ 20,001 – 30,000 ☐ 30,001 – 40,000
☐ มากกว่า 40,001

ขอขอบคุณสำหรับการตอบแบบสอบถามของท่าน

Appendix B

Reliability of Questionnaires

Reliability of Brand Value

····· Method 1 (space saver) will be used for this analysis ·····

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 400 N of Items = 6

Alpha = .5980

Reliability of Brand Equity

····· Method 1 (space saver) will be used for this analysis ·····

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 400 N of Items = 9

Alpha = .8452

Reliability of Marketing Mix Elements

····· Method 1 (space saver) will be used for this analysis ·····

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 400 N of Items = 12

Alpha = .7706

Reliability of Overall Questionnaires

····· Method 1 (space saver) will be used for this analysis ·····

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 400 N of Items = 27

Alpha = .8930

Appendix C

Independent Sample T-Test

Table C-1: The Analysis of Brand Value and Its Elements when Segmented by Gender by Using Independent-Sample T Test

Group Statistics

	GEN	N	Mean	Std. Deviation	Std. Error Mean
SUMPP	Male	176	2.9091	.6699	5.050E-02
	Female	224	2.9479	.7218	4.822E-02
SUMBX	Male	176	3.8295	.6394	4.820E-02
	Female	224	4.0179	.6957	4.648E-02
BV	Male	176	3.3693	.4666	3.517E-02
	Female	224	3.4829	.5608	3.747E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SUMPP	Equal variances assumed	.158	.691	-.551	398	.582	-3.8826E-02	7.045E-02	-.1773	9.968E-02
	Equal variances not assumed			-.556	387.090	.579	-3.8826E-02	6.983E-02	-.1761	9.846E-02
SUMBX	Equal variances assumed	.143	.705	-2.784	398	.006	-.1883	6.764E-02	-.3213	-5.533E-02
	Equal variances not assumed			-2.812	388.306	.005	-.1883	6.696E-02	-.3200	-5.666E-02
BV	Equal variances assumed	4.569	.033	-2.162	398	.031	-.1136	5.253E-02	-.2168	-1.030E-02
	Equal variances not assumed			-2.210	396.670	.028	-.1136	5.139E-02	-.2146	-1.253E-02

Table C-2: The Analysis of Brand Equity and Its Dimensions when Segmented by Gender by Using Independent-Sample T Test

Group Statistics

	GEN	N	Mean	Std. Deviation	Std. Error Mean
SUMPQ	Male	176	3.6667	.5127	3.865E-02
	Female	224	3.7589	.6197	4.141E-02
SUMBL	Male	176	3.3693	.8176	6.163E-02
	Female	224	3.3452	.8956	5.984E-02
SUMBA	Male	176	3.7936	.5971	4.501E-02
	Female	224	3.9345	.6350	4.243E-02
BE	Male	176	3.6098	.5307	4.000E-02
	Female	224	3.6796	.6035	4.032E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SUMPQ	Equal variances assumed	5.018	.026	-1.593	398	.112	-9.2262E-02	5.793E-02	-.2062	2.163E-02
	Equal variances not assumed			-1.629	396.924	.104	-9.2262E-02	5.664E-02	-.2036	1.909E-02
SUMBL	Equal variances assumed	.849	.357	.277	398	.782	2.408E-02	8.685E-02	-.1467	.1948
	Equal variances not assumed			.280	389.100	.779	2.408E-02	8.590E-02	-.1448	.1930
SUMBA	Equal variances assumed	.283	.595	-2.262	398	.024	-.1410	6.231E-02	-.2635	-1.846E-02
	Equal variances not assumed			-2.279	385.401	.023	-.1410	6.185E-02	-.2626	-1.935E-02
BE	Equal variances assumed	.515	.474	-1.209	398	.228	-6.9715E-02	5.768E-02	-.1831	4.368E-02
	Equal variances not assumed			-1.227	392.946	.220	-6.9715E-02	5.680E-02	-.1814	4.195E-02

Table C-3: The Analysis of Marketing Mix Elements when Segmented by Gender by Using Independent-Sample T Test

Group Statistics

	GEN	N	Mean	Std. Deviation	Std. Error Mean
SUMDI	Male	176	3.4886	.5656	4.263E-02
	Female	224	3.5640	.5768	3.854E-02
SUMPR	Male	176	3.3314	.4748	3.579E-02
	Female	224	3.3810	.5419	3.621E-02
SUMSI	Male	176	3.3807	.5949	4.484E-02
	Female	224	3.3914	.6493	4.339E-02
SUMAD	Male	176	3.5114	.5380	4.055E-02
	Female	224	3.6756	.6484	4.332E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SUMDI	Equal variances assumed	.012	.912	-1.308	398	.192	-7.5352E-02	5.761E-02	-.1886	3.790E-02
	Equal variances not assumed			-1.311	379.179	.191	-7.5352E-02	5.747E-02	-.1884	3.765E-02
SUMPR	Equal variances assumed	4.337	.038	-.957	398	.339	-4.9513E-02	5.172E-02	-.1512	5.217E-02
	Equal variances not assumed			-.973	393.271	.331	-4.9513E-02	5.091E-02	-.1496	5.058E-02
SUMSI	Equal variances assumed	.826	.364	-.169	398	.865	-1.0687E-02	6.305E-02	-.1346	.1133
	Equal variances not assumed			-.171	388.686	.864	-1.0687E-02	6.240E-02	-.1334	.1120
SUMAD	Equal variances assumed	2.601	.108	-2.707	398	.007	-.1642	6.067E-02	-.2835	-4.495E-02
	Equal variances not assumed			-2.768	396.803	.006	-.1642	5.934E-02	-.2809	-4.757E-02

Appendix D

The Analysis of Variance (ANOVA)

Table D-1: The Analysis of Brand Value and Its Elements when Segmented by Age by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPP	20 or less	87	3.0115	.5806	6.224E-02	2.8878	3.1352	1.00	4.67
	21-30 years	205	2.9659	.7309	5.105E-02	2.8652	3.0665	1.00	5.00
	31-40 years	94	2.7660	.6573	6.780E-02	2.6313	2.9006	1.00	5.00
	41-50 years	13	3.0769	1.0288	.2853	2.4552	3.6986	1.33	4.67
	51 or more	1	2.3333	.	.	.	.	2.33	2.33
	Total	400	2.9308	.6988	3.494E-02	2.8621	2.9995	1.00	5.00
SUMBX	20 or less	87	3.9885	.8077	8.659E-02	3.8164	4.1606	1.00	5.00
	21-30 years	205	3.9837	.6423	4.486E-02	3.8953	4.0722	1.00	5.00
	31-40 years	94	3.8156	.6195	6.390E-02	3.6887	3.9425	2.00	5.00
	41-50 years	13	3.6667	.5774	.1601	3.3178	4.0156	3.00	4.67
	51 or more	1	4.0000	.	.	.	.	4.00	4.00
	Total	400	3.9350	.6772	3.386E-02	3.8684	4.0016	1.00	5.00
BV	20 or less	87	3.5000	.5240	5.618E-02	3.3883	3.6117	2.00	4.50
	21-30 years	205	3.4748	.5335	3.726E-02	3.4013	3.5483	1.67	5.00
	31-40 years	94	3.2908	.4783	4.933E-02	3.1928	3.3887	2.17	5.00
	41-50 years	13	3.3718	.5617	.1558	3.0324	3.7112	2.33	4.67
	51 or more	1	3.1667	.	.	.	.	3.17	3.17
	Total	400	3.4329	.5239	2.619E-02	3.3814	3.4844	1.67	5.00

Table D-1: The Analysis of Brand Value and Its Elements when Segmented by Age by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPP	Between Groups	4.007	4	1.002	2.073	.084
	Within Groups	190.857	395	.483		
	Total	194.864	399			
SUMBX	Between Groups	3.016	4	.754	1.655	.160
	Within Groups	179.960	395	.456		
	Total	182.977	399			
BV	Between Groups	2.770	4	.692	2.562	.038
	Within Groups	106.736	395	.270		
	Total	109.505	399			

Table D-2: The Analysis of Brand Equity and Its Dimensions when Segmented by Age by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPQ	20 or less	87	3.6513	.5589	5.993E-02	3.5322	3.7705	2.00	5.00
	21-30 years	205	3.7642	.5979	4.176E-02	3.6819	3.8466	1.33	5.00
	31-40 years	94	3.6560	.5475	5.647E-02	3.5439	3.7682	1.67	4.67
	41-50 years	13	3.8974	.5161	.1431	3.5855	4.2093	3.00	4.67
	51 or more	1	3.6667	.	.	.	.	3.67	3.67
	Total	400	3.7183	.5762	2.881E-02	3.6617	3.7750	1.33	5.00
SUMBL	20 or less	87	3.4636	.8527	9.141E-02	3.2819	3.6453	1.00	5.00
	21-30 years	205	3.3577	.8625	6.024E-02	3.2389	3.4765	1.00	5.00
	31-40 years	94	3.2624	.8577	8.847E-02	3.0867	3.4381	1.00	5.00
	41-50 years	13	3.3846	.8908	.2471	2.8463	3.9229	2.00	4.67
	51 or more	1	2.0000	.	.	.	.	2.00	2.00
	Total	400	3.3558	.8612	4.306E-02	3.2712	3.4405	1.00	5.00
SUMBA	20 or less	87	3.8352	.7169	7.686E-02	3.6825	3.9880	2.00	5.00
	21-30 years	205	3.9268	.6153	4.298E-02	3.8421	4.0116	1.33	5.00
	31-40 years	94	3.7979	.5599	5.775E-02	3.6832	3.9126	2.33	5.00
	41-50 years	13	3.8205	.4434	.1230	3.5526	4.0884	3.00	4.67
	51 or more	1	3.6667	.	.	.	.	3.67	3.67
	Total	400	3.8725	.6218	3.109E-02	3.8114	3.9336	1.33	5.00
BE	20 or less	87	3.6501	.5994	6.427E-02	3.5223	3.7778	2.11	5.00
	21-30 years	205	3.6829	.5785	4.040E-02	3.6033	3.7626	1.56	5.00
	31-40 years	94	3.5721	.5436	5.607E-02	3.4608	3.6834	2.22	4.67
	41-50 years	13	3.7009	.5180	.1437	3.3879	4.0139	2.89	4.33
	51 or more	1	3.1111	.	.	.	.	3.11	3.11
	Total	400	3.6489	.5730	2.865E-02	3.5926	3.7052	1.56	5.00

Table D-2: The Analysis of Brand Equity and Its Dimensions when Segmented by Age by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPQ	Between Groups	1.607	4	.402	1.212	.305
	Within Groups	130.881	395	.331		
	Total	132.488	399			
SUMBL	Between Groups	3.681	4	.920	1.244	.292
	Within Groups	292.228	395	.740		
	Total	295.909	399			
SUMBA	Between Groups	1.327	4	.332	.857	.490
	Within Groups	152.948	395	.387		
	Total	154.275	399			
BE	Between Groups	1.116	4	.279	.849	.495
	Within Groups	129.869	395	.329		
	Total	130.985	399			

Table D-3: The Analysis of Marketing Mix Elements when Segmented by Age by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMDI	20 or less	87	3.3755	.5967	6.398E-02	3.2483	3.5027	1.33	5.00
	21-30 years	205	3.6455	.5514	3.851E-02	3.5696	3.7215	2.00	5.00
	31-40 years	94	3.4220	.5403	5.573E-02	3.3113	3.5327	2.00	5.00
	41-50 years	13	3.5897	.6259	.1736	3.2115	3.9680	2.67	5.00
	51 or more	1	3.0000	.	.	.	.	3.00	3.00
	Total	400	3.5308	.5724	2.862E-02	3.4746	3.5871	1.33	5.00
SUMPR	20 or less	87	3.3295	.5196	5.571E-02	3.2188	3.4402	2.33	4.67
	21-30 years	205	3.3545	.5240	3.660E-02	3.2823	3.4266	2.00	4.67
	31-40 years	94	3.4078	.4843	4.995E-02	3.3086	3.5070	2.33	5.00
	41-50 years	13	3.3333	.5270	.1462	3.0148	3.6518	2.33	4.00
	51 or more	1	2.6667	.	.	.	.	2.67	2.67
	Total	400	3.3592	.5134	2.567E-02	3.3087	3.4096	2.00	5.00
SUMSI	20 or less	87	3.4291	.6912	7.411E-02	3.2818	3.5764	1.33	5.00
	21-30 years	205	3.4553	.6355	4.439E-02	3.3678	3.5428	1.67	5.00
	31-40 years	94	3.2305	.4962	5.118E-02	3.1289	3.3321	1.33	4.33
	41-50 years	13	3.2051	.6602	.1831	2.8062	3.6041	2.00	4.67
	51 or more	1	2.6667	.	.	.	.	2.67	2.67
	Total	400	3.3867	.6252	3.126E-02	3.3252	3.4481	1.33	5.00
SUMAD	20 or less	87	3.5709	.6780	7.269E-02	3.4264	3.7154	2.00	5.00
	21-30 years	205	3.6829	.6199	4.330E-02	3.5976	3.7683	1.00	5.00
	31-40 years	94	3.5035	.4906	5.061E-02	3.4031	3.6040	2.00	5.00
	41-50 years	13	3.3590	.4804	.1332	3.0687	3.6493	3.00	4.33
	51 or more	1	2.6667	.	.	.	.	2.67	2.67
	Total	400	3.6033	.6071	3.036E-02	3.5437	3.6630	1.00	5.00

Table D-3: The Analysis of Marketing Mix Elements when Segmented by Age by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMDI	Between Groups	6.237	4	1.559	4.947	.001
	Within Groups	124.494	395	.315		
	Total	130.731	399			
SUMPR	Between Groups	.792	4	.198	.749	.559
	Within Groups	104.386	395	.264		
	Total	105.177	399			
SUMSI	Between Groups	4.361	4	1.090	2.841	.024
	Within Groups	151.612	395	.384		
	Total	155.973	399			
SUMAD	Between Groups	3.980	4	.995	2.747	.028
	Within Groups	143.082	395	.362		
	Total	147.062	399			

Table D-4: The Analysis of Brand Value and Its Elements when Segmented by Education Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPP	High school gratuate or less	37	2.8919	.6986	.1148	2.6590	3.1248	1.33	4.67
	Graduate degree	38	3.0088	.5773	9.365E-02	2.8190	3.1985	1.67	4.00
	Bachelor degree	277	2.9591	.7206	4.330E-02	2.8739	3.0443	1.00	5.00
	Master degree	47	2.7305	.6469	9.437E-02	2.5405	2.9204	1.00	4.00
	Doctoral degree	1	3.0000	.	.	.	.	3.00	3.00
	Total	400	2.9308	.6988	3.494E-02	2.8621	2.9995	1.00	5.00
SUMBX	High school gratuate or less	37	3.8919	.6385	.1050	3.6790	4.1048	3.00	5.00
	Graduate degree	38	3.8246	.7969	.1293	3.5626	4.0865	1.00	5.00
	Bachelor degree	277	3.9663	.6778	4.072E-02	3.8861	4.0465	1.00	5.00
	Master degree	47	3.8865	.6030	8.796E-02	3.7095	4.0636	2.67	5.00
	Doctoral degree	1	3.3333	.	.	.	.	3.33	3.33
	Total	400	3.9350	.6772	3.386E-02	3.8684	4.0016	1.00	5.00
BV	High school gratuate or less	37	3.3919	.4668	7.675E-02	3.2362	3.5475	2.33	4.67
	Graduate degree	38	3.4167	.5078	8.238E-02	3.2497	3.5836	2.00	4.17
	Bachelor degree	277	3.4627	.5460	3.281E-02	3.3981	3.5273	1.67	5.00
	Master degree	47	3.3085	.4354	6.351E-02	3.1807	3.4364	2.17	4.17
	Doctoral degree	1	3.1667	.	.	.	.	3.17	3.17
	Total	400	3.4329	.5239	2.619E-02	3.3814	3.4844	1.67	5.00

Table D-4: The Analysis of Brand Value and Its Elements when Segmented by Education Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPP	Between Groups	2.399	4	.600	1.231	.297
	Within Groups	192.465	395	.487		
	Total	194.864	399			
SUMBX	Between Groups	1.276	4	.319	.694	.597
	Within Groups	181.701	395	.460		
	Total	182.977	399			
BV	Between Groups	1.116	4	.279	1.017	.398
	Within Groups	108.389	395	.274		
	Total	109.505	399			

Table D-5: The Analysis of Brand Equity and Its Dimensions when Segmented by Education Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPQ	High school gratuate or less	37	3.6216	.4659	7.659E-02	3.4663	3.7770	2.67	4.67
	Graduate degree	38	3.6316	.5128	8.319E-02	3.4630	3.8001	2.33	4.33
	Bachelor degree	277	3.7665	.5966	3.585E-02	3.6960	3.8371	1.33	5.00
	Master degree	47	3.6028	.5457	7.960E-02	3.4426	3.7631	1.67	4.33
	Doctoral degree	1	2.6667	.	.	.	.	2.67	2.67
	Total	400	3.7183	.5762	2.881E-02	3.6617	3.7750	1.33	5.00
SUMBL	High school gratuate or less	37	3.4775	.7007	.1152	3.2438	3.7111	2.33	5.00
	Graduate degree	38	3.2895	.8244	.1337	3.0185	3.5605	1.67	5.00
	Bachelor degree	277	3.3730	.8899	5.347E-02	3.2678	3.4783	1.00	5.00
	Master degree	47	3.2199	.8435	.1230	2.9722	3.4675	1.00	4.67
	Doctoral degree	1	3.0000	.	.	.	.	3.00	3.00
	Total	400	3.3558	.8612	4.306E-02	3.2712	3.4405	1.00	5.00
SUMBA	High school gratuate or less	37	3.7477	.7001	.1151	3.5143	3.9812	2.67	5.00
	Graduate degree	38	3.8509	.6743	.1094	3.6293	4.0725	2.00	5.00
	Bachelor degree	277	3.9073	.6312	3.792E-02	3.8327	3.9820	1.33	5.00
	Master degree	47	3.7872	.4308	6.285E-02	3.6607	3.9137	2.67	4.67
	Doctoral degree	1	3.6667	.	.	.	.	3.67	3.67
	Total	400	3.8725	.6218	3.109E-02	3.8114	3.9336	1.33	5.00
BE	High school gratuate or less	37	3.6156	.5365	8.819E-02	3.4368	3.7945	2.56	4.89
	Graduate degree	38	3.5906	.5282	8.569E-02	3.4170	3.7643	2.22	4.78
	Bachelor degree	277	3.6823	.5967	3.585E-02	3.6117	3.7529	1.56	5.00
	Master degree	47	3.5366	.4817	7.027E-02	3.3952	3.6781	2.22	4.56
	Doctoral degree	1	3.1111	.	.	.	.	3.11	3.11
	Total	400	3.6489	.5730	2.865E-02	3.5926	3.7052	1.56	5.00

Table D-5: The Analysis of Brand Equity and Its Dimensions when Segmented by Education Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPQ	Between Groups	3.009	4	.752	2.295	.059
	Within Groups	129.479	395	.328		
	Total	132.488	399			
SUMBL	Between Groups	1.793	4	.448	.602	.662
	Within Groups	294.116	395	.745		
	Total	295.909	399			
SUMBA	Between Groups	1.314	4	.328	.848	.495
	Within Groups	152.961	395	.387		
	Total	154.275	399			
BE	Between Groups	1.361	4	.340	1.037	.388
	Within Groups	129.624	395	.328		
	Total	130.985	399			

Table D-6: The Analysis of Marketing Mix Elements when Segmented by Education Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMDI	High school gratuate or less	37	3.3514	.4227	6.949E-02	3.2104	3.4923	2.33	5.00
	Graduate degree	38	3.3070	.5163	8.375E-02	3.1373	3.4767	2.33	4.67
	Bachelor degree	277	3.6101	.5962	3.582E-02	3.5396	3.6806	1.33	5.00
	Master degree	47	3.3972	.4747	6.924E-02	3.2578	3.5365	2.67	4.33
	Doctoral degree	1	3.0000	.	.	.	.	3.00	3.00
	Total	400	3.5308	.5724	2.862E-02	3.4746	3.5871	1.33	5.00
SUMPR	High school gratuate or less	37	3.2973	.4700	7.727E-02	3.1406	3.4540	2.33	4.00
	Graduate degree	38	3.4123	.4345	7.049E-02	3.2695	3.5551	2.33	4.00
	Bachelor degree	277	3.3742	.5201	3.125E-02	3.3127	3.4358	2.00	4.67
	Master degree	47	3.2695	.5674	8.276E-02	3.1029	3.4361	2.33	5.00
	Doctoral degree	1	3.6667	.	.	.	.	3.67	3.67
	Total	400	3.3592	.5134	2.567E-02	3.3087	3.4096	2.00	5.00
SUMSI	High school gratuate or less	37	3.5135	.6648	.1093	3.2919	3.7352	2.67	5.00
	Graduate degree	38	3.4123	.5393	8.749E-02	3.2350	3.5896	2.33	4.33
	Bachelor degree	277	3.4103	.6387	3.837E-02	3.3348	3.4859	1.33	5.00
	Master degree	47	3.1560	.5005	7.300E-02	3.0091	3.3030	1.33	4.33
	Doctoral degree	1	2.0000	.	.	.	.	2.00	2.00
	Total	400	3.3867	.6252	3.126E-02	3.3252	3.4481	1.33	5.00
SUMAD	High school gratuate or less	37	3.5045	.6217	.1022	3.2972	3.7118	2.67	5.00
	Graduate degree	38	3.5000	.5521	8.956E-02	3.3185	3.6815	2.33	4.67
	Bachelor degree	277	3.6619	.6229	3.743E-02	3.5882	3.7355	1.00	5.00
	Master degree	47	3.4113	.4925	7.184E-02	3.2667	3.5560	2.33	4.67
	Doctoral degree	1	4.0000	.	.	.	.	4.00	4.00
	Total	400	3.6033	.6071	3.036E-02	3.5437	3.6630	1.00	5.00

Table D-6: The Analysis of Marketing Mix Elements when Segmented by Education Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMDI	Between Groups	5.958	4	1.489	4.715	.001
	Within Groups	124.773	395	.316		
	Total	130.731	399			
SUMPR	Between Groups	.784	4	.196	.742	.564
	Within Groups	104.393	395	.264		
	Total	105.177	399			
SUMSI	Between Groups	5.199	4	1.300	3.405	.009
	Within Groups	150.775	395	.382		
	Total	155.973	399			
SUMAD	Between Groups	3.605	4	.901	2.482	.043
	Within Groups	143.457	395	.363		
	Total	147.062	399			

Table D-7: The Analysis of Brand Value and Its Elements when Segmented by Occupation by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPP	Student	142	3.1268	.7088	5.948E-02	3.0092	3.2443	1.00	5.00
	Employee	187	2.8396	.6925	5.064E-02	2.7397	2.9395	1.00	5.00
	Management	14	2.6667	.4714	.1260	2.3945	2.9388	2.00	3.33
	Government	48	2.8056	.5787	8.353E-02	2.6375	2.9736	1.67	4.67
	Self employed	5	3.1333	.8367	.3742	2.0945	4.1722	2.33	4.00
	Other	4	2.4167	1.0672	.5336	.7185	4.1148	1.33	3.33
	Total	400	2.9308	.6988	3.494E-02	2.8621	2.9995	1.00	5.00
SUMBX	Student	142	4.1385	.7312	6.136E-02	4.0172	4.2598	1.00	5.00
	Employee	187	3.8574	.6639	4.855E-02	3.7616	3.9532	1.00	5.00
	Management	14	3.6429	.4797	.1282	3.3659	3.9199	3.00	4.67
	Government	48	3.7292	.4845	6.994E-02	3.5885	3.8699	2.33	4.67
	Self employed	5	3.8000	.5055	.2261	3.1723	4.4277	3.33	4.33
	Other	4	4.0000	.2722	.1361	3.5669	4.4331	3.67	4.33
	Total	400	3.9350	.6772	3.386E-02	3.8684	4.0016	1.00	5.00
BV	Student	142	3.6326	.5409	4.539E-02	3.5429	3.7224	2.00	5.00
	Employee	187	3.3485	.5117	3.742E-02	3.2747	3.4223	1.67	5.00
	Management	14	3.1548	.3233	8.642E-02	2.9681	3.3415	2.67	3.67
	Government	48	3.2674	.4050	5.845E-02	3.1498	3.3850	2.33	4.67
	Self employed	5	3.4667	.2739	.1225	3.1266	3.8067	3.17	3.83
	Other	4	3.2083	.4383	.2192	2.5109	3.9058	2.83	3.67
	Total	400	3.4329	.5239	2.619E-02	3.3814	3.4844	1.67	5.00

Table D-7: The Analysis of Brand Value and Its Elements when Segmented by Occupation by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPP	Between Groups	10.001	5	2.000	4.263	.001
	Within Groups	184.863	394	.469		
	Total	194.864	399			
SUMBX	Between Groups	10.343	5	2.069	4.721	.000
	Within Groups	172.634	394	.438		
	Total	182.977	399			
BV	Between Groups	9.603	5	1.921	7.575	.000
	Within Groups	99.902	394	.254		
	Total	109.505	399			

Multiple Comparisons

Dependent Variable: SUMPP

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.2872*	7.624E-02	.000	.1373	.4371
	Management	.4601*	.1919	.017	8.286E-02	.8373
	Government	.3212*	.1144	.005	9.637E-02	.5460
	Self employed	-6.5728E-03	.3117	.983	-.6193	.6062
	Other	.7101*	.3473	.042	2.734E-02	1.3928
Employee	Student	-.2872*	7.624E-02	.000	-.4371	-.1373
	Management	.1729	.1898	.363	-.2002	.5460
	Government	3.402E-02	.1108	.759	-.1839	.2519
	Self employed	-.2938	.3104	.345	-.9040	.3165
	Other	.4229	.3461	.223	-.2576	1.1034
Management	Student	-.4601*	.1919	.017	-.8373	-8.2856E-02
	Employee	-.1729	.1898	.363	-.5460	.2002
	Government	-.1389	.2081	.505	-.5479	.2702
	Self employed	-.4667	.3569	.192	-1.1683	.2349
	Other	.2500	.3883	.520	-.5135	1.0135
Government	Student	-.3212*	.1144	.005	-.5460	-9.6365E-02
	Employee	-3.4017E-02	.1108	.759	-.2519	.1839
	Management	.1389	.2081	.505	-.2702	.5479
	Self employed	-.3278	.3219	.309	-.9606	.3051
	Other	.3889	.3565	.276	-.3119	1.0897
Self employed	Student	6.573E-03	.3117	.983	-.6062	.6193
	Employee	.2938	.3104	.345	-.3165	.9040
	Management	.4667	.3569	.192	-.2349	1.1683
	Government	.3278	.3219	.309	-.3051	.9606
	Other	.7167	.4595	.120	-.1867	1.6200
Other	Student	-.7101*	.3473	.042	-1.3928	-2.7342E-02
	Employee	-.4229	.3461	.223	-1.1034	.2576
	Management	-.2500	.3883	.520	-1.0135	.5135
	Government	-.3889	.3565	.276	-1.0897	.3119
	Self employed	-.7167	.4595	.120	-1.6200	.1867

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMBX

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.2811*	7.368E-02	.000	.1362	.4260
	Management	.4956*	.1854	.008	.1311	.8602
	Government	.4093*	.1105	.000	.1921	.6266
	Self employed	.3385	.3012	.262	-.2536	.9306
	Other	.1385	.3356	.680	-.5213	.7983
Employee	Student	-.2811*	7.368E-02	.000	-.4260	-.1362
	Management	.2145	.1834	.243	-.1460	.5751
	Government	.1282	.1071	.232	-8.2337E-02	.3388
	Self employed	5.740E-02	.3000	.848	-.5323	.6471
	Other	-.1426	.3345	.670	-.8002	.5150
Management	Student	-.4956*	.1854	.008	-.8602	-.1311
	Employee	-.2145	.1834	.243	-.5751	.1460
	Government	-8.6310E-02	.2011	.668	-.4816	.3090
	Self employed	-.1571	.3449	.649	-.8351	.5209
	Other	-.3571	.3753	.342	-1.0949	.3807
Government	Student	-.4093*	.1105	.000	-.6266	-.1921
	Employee	-.1282	.1071	.232	-.3388	8.234E-02
	Management	8.631E-02	.2011	.668	-.3090	.4816
	Self employed	-7.0833E-02	.3111	.820	-.6824	.5407
	Other	-.2708	.3445	.432	-.9481	.4064
Self employed	Student	-.3385	.3012	.262	-.9306	.2536
	Employee	-5.7398E-02	.3000	.848	-.6471	.5323
	Management	.1571	.3449	.649	-.5209	.8351
	Government	7.083E-02	.3111	.820	-.5407	.6824
	Other	-.2000	.4440	.653	-1.0730	.6730
Other	Student	-.1385	.3356	.680	-.7983	.5213
	Employee	.1426	.3345	.670	-.5150	.8002
	Management	.3571	.3753	.342	-.3807	1.0949
	Government	.2708	.3445	.432	-.4064	.9481
	Self employed	.2000	.4440	.653	-.6730	1.0730

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: BV

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.2841*	5.605E-02	.000	.1740	.3943
	Management	.4779*	.1411	.001	.2005	.7552
	Government	.3653*	8.407E-02	.000	.2000	.5306
	Self employed	.1660	.2291	.469	-.2845	.6164
	Other	.4243	.2553	.097	-7.7615E-02	.9262
Employee	Student	-.2841*	5.605E-02	.000	-.3943	-.1740
	Management	.1937	.1395	.166	-8.0584E-02	.4680
	Government	8.112E-02	8.148E-02	.320	-7.9059E-02	.2413
	Self employed	-.1182	.2282	.605	-.5668	.3304
	Other	.1402	.2545	.582	-.3601	.6404
Management	Student	-.4779*	.1411	.001	-.7552	-.2005
	Employee	-.1937	.1395	.166	-.4680	8.058E-02
	Government	-.1126	.1530	.462	-.4133	.1881
	Self employed	-.3119	.2623	.235	-.8277	.2039
	Other	-5.3571E-02	.2855	.851	-.6148	.5077
Government	Student	-.3653*	8.407E-02	.000	-.5306	-.2000
	Employee	-8.1124E-02	8.148E-02	.320	-.2413	7.906E-02
	Management	.1126	.1530	.462	-.1881	.4133
	Self employed	-.1993	.2366	.400	-.6645	.2659
	Other	5.903E-02	.2621	.822	-.4562	.5742
Self employed	Student	-.1660	.2291	.469	-.6164	.2845
	Employee	.1182	.2282	.605	-.3304	.5668
	Management	.3119	.2623	.235	-.2039	.8277
	Government	.1993	.2366	.400	-.2659	.6645
	Other	.2583	.3378	.445	-.4058	.9224
Other	Student	-.4243	.2553	.097	-.9262	7.762E-02
	Employee	-.1402	.2545	.582	-.6404	.3601
	Management	5.357E-02	.2855	.851	-.5077	.6148
	Government	-5.9028E-02	.2621	.822	-.5742	.4562
	Self employed	-.2583	.3378	.445	-.9224	.4058

*. The mean difference is significant at the .05 level.

Table D-8: The Analysis of Brand Equity and Its Dimensions when Segmented by Occupation by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPQ	Student	142	3.7770	.6147	5.158E-02	3.6750	3.8790	1.33	5.00
	Employee	187	3.7077	.5691	4.162E-02	3.6256	3.7898	1.67	5.00
	Management	14	3.8810	.4052	.1083	3.6470	4.1149	3.00	4.33
	Government	48	3.5486	.4788	6.911E-02	3.4096	3.6876	2.67	4.33
	Self employed	5	3.7333	.7958	.3559	2.7452	4.7215	2.67	4.67
	Other	4	3.5833	.6310	.3155	2.5793	4.5874	2.67	4.00
	Total	400	3.7183	.5762	2.881E-02	3.6617	3.7750	1.33	5.00
SUMBL	Student	142	3.5235	.8601	7.218E-02	3.3808	3.6662	1.00	5.00
	Employee	187	3.2602	.8860	6.479E-02	3.1324	3.3881	1.00	5.00
	Management	14	3.5238	.7703	.2059	3.0790	3.9686	2.00	4.67
	Government	48	3.2222	.7448	.1075	3.0059	3.4385	1.67	4.67
	Self employed	5	3.4000	.5963	.2667	2.6596	4.1404	3.00	4.33
	Other	4	2.8333	.8819	.4410	1.4300	4.2367	2.00	4.00
	Total	400	3.3558	.8612	4.306E-02	3.2712	3.4405	1.00	5.00
SUMBA	Student	142	3.9507	.6944	5.827E-02	3.8355	4.0659	2.00	5.00
	Employee	187	3.8752	.5976	4.370E-02	3.7890	3.9614	1.33	5.00
	Management	14	3.6905	.6975	.1864	3.2877	4.0932	2.33	4.67
	Government	48	3.6944	.4116	5.941E-02	3.5749	3.8140	2.67	4.67
	Self employed	5	3.9333	.4944	.2211	3.3194	4.5472	3.33	4.67
	Other	4	3.6667	.7201	.3600	2.5209	4.8125	2.67	4.33
	Total	400	3.8725	.6218	3.109E-02	3.8114	3.9336	1.33	5.00
BE	Student	142	3.7504	.6156	5.166E-02	3.6483	3.8525	2.11	5.00
	Employee	187	3.6144	.5648	4.130E-02	3.5329	3.6959	1.56	5.00
	Management	14	3.6984	.5053	.1350	3.4067	3.9902	2.56	4.33
	Government	48	3.4884	.4554	6.573E-02	3.3562	3.6207	2.44	4.56
	Self-employed	5	3.6889	.4541	.2031	3.1251	4.2527	3.11	4.11
	Other	4	3.3611	.5836	.2918	2.4325	4.2897	2.56	3.89
	Total	400	3.6489	.5730	2.865E-02	3.5926	3.7052	1.56	5.00

Table D-8: The Analysis of Brand Equity and Its Dimensions when Segmented by Occupation by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPQ	Between Groups	2.337	5	.467	1.415	.218
	Within Groups	130.151	394	.330		
	Total	132.488	399			
SUMBL	Between Groups	8.053	5	1.611	2.204	.053
	Within Groups	287.856	394	.731		
	Total	295.909	399			
SUMBA	Between Groups	3.043	5	.609	1.586	.163
	Within Groups	151.232	394	.384		
	Total	154.275	399			
BE	Between Groups	3.295	5	.659	2.034	.073
	Within Groups	127.689	394	.324		
	Total	130.985	399			

Multiple Comparisons

Dependent Variable: SUMPQ

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	6.933E-02	6.397E-02	.279	-5.6444E-02	.1951
	Management	-.1040	.1610	.519	-.4205	.2126
	Government	.2284*	9.596E-02	.018	3.973E-02	.4170
	Self employed	4.366E-02	.2615	.867	-.4705	.5578
	Other	.1937	.2914	.507	-.3792	.7665
Employee	Student	-6.9330E-02	6.397E-02	.279	-.1951	5.644E-02
	Management	-.1733	.1593	.277	-.4864	.1398
	Government	.1591	9.300E-02	.088	-2.3778E-02	.3419
	Self employed	-2.5668E-02	.2604	.922	-.5377	.4864
	Other	.1243	.2904	.669	-.4467	.6953
Management	Student	.1040	.1610	.519	-.2126	.4205
	Employee	.1733	.1593	.277	-.1398	.4864
	Government	.3323	.1746	.058	-1.0877E-02	.6756
	Self employed	.1476	.2994	.622	-.4411	.7363
	Other	.2976	.3259	.362	-.3430	.9382
Government	Student	-.2284*	9.596E-02	.018	-.4170	-3.9728E-02
	Employee	-.1591	9.300E-02	.088	-.3419	2.378E-02
	Management	-.3323	.1746	.058	-.6756	1.088E-02
	Self employed	-.1847	.2701	.494	-.7157	.3463
	Other	-3.4722E-02	.2991	.908	-.6228	.5533
Self employed	Student	-4.3662E-02	.2615	.867	-.5578	.4705
	Employee	2.567E-02	.2604	.922	-.4864	.5377
	Management	-.1476	.2994	.622	-.7363	.4411
	Government	.1847	.2701	.494	-.3463	.7157
	Other	.1500	.3856	.697	-.6080	.9080
Other	Student	-.1937	.2914	.507	-.7665	.3792
	Employee	-.1243	.2904	.669	-.6953	.4467
	Management	-.2976	.3259	.362	-.9382	.3430
	Government	3.472E-02	.2991	.908	-.5533	.6228
	Self employed	-.1500	.3856	.697	-.9080	.6080

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMBL

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.2632*	9.514E-02	.006	7.618E-02	.4503
	Management	-3.3535E-04	.2394	.999	-.4711	.4704
	Government	.3013*	.1427	.035	2.069E-02	.5818
	Self employed	.1235	.3889	.751	-.6412	.8881
	Other	.6901	.4334	.112	-.1618	1.5421
Employee	Student	-.2632*	9.514E-02	.006	-.4503	-7.6175E-02
	Management	-.2636	.2368	.266	-.7292	.2021
	Government	3.803E-02	.1383	.783	-.2339	.3099
	Self employed	-.1398	.3873	.718	-.9012	.6217
	Other	.4269	.4319	.324	-.4222	1.2761
Management	Student	3.353E-04	.2394	.999	-.4704	.4711
	Employee	.2636	.2368	.266	-.2021	.7292
	Government	.3016	.2596	.246	-.2088	.8120
	Self employed	.1238	.4453	.781	-.7517	.9993
	Other	.6905	.4846	.155	-.2622	1.6432
Government	Student	-.3013*	.1427	.035	-.5818	-2.0686E-02
	Employee	-3.8027E-02	.1383	.783	-.3099	.2339
	Management	-.3016	.2596	.246	-.8120	.2088
	Self employed	-.1778	.4017	.658	-.9675	.6119
	Other	.3889	.4448	.383	-.4856	1.2634
Self employed	Student	-.1235	.3889	.751	-.8881	.6412
	Employee	.1398	.3873	.718	-.6217	.9012
	Management	-.1238	.4453	.781	-.9993	.7517
	Government	.1778	.4017	.658	-.6119	.9675
	Other	.5667	.5734	.324	-.5606	1.6939
Other	Student	-.6901	.4334	.112	-1.5421	.1618
	Employee	-.4269	.4319	.324	-1.2761	.4222
	Management	-.6905	.4846	.155	-1.6432	.2622
	Government	-.3889	.4448	.383	-1.2634	.4856
	Self employed	-.5667	.5734	.324	-1.6939	.5606

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMBA

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	7.548E-02	6.896E-02	.274	-6.0097E-02	.2111
	Management	.2602	.1736	.135	-8.0974E-02	.6014
	Government	.2563*	.1034	.014	5.290E-02	.4596
	Self employed	1.737E-02	.2819	.951	-.5369	.5716
	Other	.2840	.3141	.366	-.3335	.9016
Employee	Student	-7.5481E-02	6.896E-02	.274	-.2111	6.010E-02
	Management	.1847	.1717	.282	-.1528	.5222
	Government	.1808	.1002	.072	-1.6305E-02	.3779
	Self employed	-5.8111E-02	.2807	.836	-.6101	.4938
	Other	.2086	.3131	.506	-.4069	.8240
Management	Student	-.2602	.1736	.135	-.6014	8.097E-02
	Employee	-.1847	.1717	.282	-.5222	.1528
	Government	-3.9683E-03	.1882	.983	-.3739	.3660
	Self employed	-.2429	.3228	.452	-.8774	.3917
	Other	2.381E-02	.3512	.946	-.6667	.7144
Government	Student	-.2563*	.1034	.014	-.4596	-5.2898E-02
	Employee	-.1808	.1002	.072	-.3779	1.631E-02
	Management	3.968E-03	.1882	.983	-.3660	.3739
	Self employed	-.2389	.2911	.412	-.8113	.3335
	Other	2.778E-02	.3224	.931	-.6061	.6617
Self employed	Student	-1.7371E-02	.2819	.951	-.5716	.5369
	Employee	5.811E-02	.2807	.836	-.4938	.6101
	Management	.2429	.3228	.452	-.3917	.8774
	Government	.2389	.2911	.412	-.3335	.8113
	Other	.2667	.4156	.521	-.5504	1.0837
Other	Student	-.2840	.3141	.366	-.9016	.3335
	Employee	-.2086	.3131	.506	-.8240	.4069
	Management	-2.3810E-02	.3512	.946	-.7144	.6667
	Government	-2.7778E-02	.3224	.931	-.6617	.6061
	Self employed	-.2667	.4156	.521	-1.0837	.5504

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: BE

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.1360*	6.337E-02	.032	1.143E-02	.2606
	Management	5.198E-02	.1595	.745	-.2615	.3655
	Government	.2620*	9.505E-02	.006	7.510E-02	.4488
	Self employed	6.150E-02	.2590	.812	-.4478	.5708
	Other	.3893	.2886	.178	-.1782	.9567
Employee	Student	-.1360*	6.337E-02	.032	-.2606	-1.1433E-02
	Management	-8.4034E-02	.1577	.595	-.3942	.2261
	Government	.1260	9.211E-02	.172	-5.5142E-02	.3070
	Self employed	-7.4510E-02	.2580	.773	-.5817	.4327
	Other	.2533	.2877	.379	-.3123	.8188
Management	Student	-5.1979E-02	.1595	.745	-.3655	.2615
	Employee	8.403E-02	.1577	.595	-.2261	.3942
	Government	.2100	.1729	.225	-.1300	.5499
	Self employed	9.524E-03	.2966	.974	-.5736	.5926
	Other	.3373	.3228	.297	-.2972	.9718
Government	Student	-.2620*	9.505E-02	.006	-.4488	-7.5101E-02
	Employee	-.1260	9.211E-02	.172	-.3070	5.514E-02
	Management	-.2100	.1729	.225	-.5499	.1300
	Self employed	-.2005	.2675	.454	-.7264	.3255
	Other	.1273	.2963	.668	-.4551	.7098
Self employed	Student	-6.1502E-02	.2590	.812	-.5708	.4478
	Employee	7.451E-02	.2580	.773	-.4327	.5817
	Management	-9.5238E-03	.2966	.974	-.5926	.5736
	Government	.2005	.2675	.454	-.3255	.7264
	Other	.3278	.3819	.391	-.4230	1.0786
Other	Student	-.3893	.2886	.178	-.9567	.1782
	Employee	-.2533	.2877	.379	-.8188	.3123
	Management	-.3373	.3228	.297	-.9718	.2972
	Government	-.1273	.2963	.668	-.7098	.4551
	Self employed	-.3278	.3819	.391	-1.0786	.4230

*. The mean difference is significant at the .05 level.

Table D-9: The Analysis of Marketing Mix Elements when Segmented by Occupation by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMDI	Student	142	3.5986	.5936	4.981E-02	3.5001	3.6971	1.33	5.00
	Employee	187	3.5651	.5518	4.035E-02	3.4855	3.6447	2.00	5.00
	Management	14	3.5238	.4075	.1089	3.2885	3.7591	2.67	4.00
	Government	48	3.1944	.5274	7.613E-02	3.0413	3.3476	2.00	5.00
	Self employed	5	3.7333	.5477	.2449	3.0532	4.4134	3.00	4.33
	Other	4	3.3333	.6667	.3333	2.2725	4.3941	2.33	3.67
	Total	400	3.5308	.5724	2.862E-02	3.4746	3.5871	1.33	5.00
SUMPR	Student	142	3.3451	.5592	4.693E-02	3.2523	3.4378	2.00	4.67
	Employee	187	3.3868	.4797	3.508E-02	3.3176	3.4560	2.33	4.67
	Management	14	3.5476	.7350	.1964	3.1232	3.9720	2.67	5.00
	Government	48	3.2500	.3920	5.658E-02	3.1362	3.3638	2.33	4.00
	Self employed	5	3.6000	.4346	.1944	3.0604	4.1396	3.00	4.00
	Other	4	2.9167	.5693	.2846	2.0108	3.8225	2.33	3.67
	Total	400	3.3592	.5134	2.567E-02	3.3087	3.4096	2.00	5.00
SUMSI	Student	142	3.5563	.7165	6.013E-02	3.4375	3.6752	1.33	5.00
	Employee	187	3.3387	.5653	4.134E-02	3.2571	3.4202	1.33	5.00
	Management	14	3.1905	.6092	.1628	2.8387	3.5422	2.00	4.00
	Government	48	3.1806	.4066	5.868E-02	3.0625	3.2986	2.00	4.67
	Self employed	5	3.0667	.8300	.3712	2.0361	4.0972	2.00	4.33
	Other	4	3.1667	.5774	.2887	2.2480	4.0854	2.67	4.00
	Total	400	3.3867	.6252	3.126E-02	3.3252	3.4481	1.33	5.00
SUMAD	Student	142	3.7465	.6689	5.614E-02	3.6355	3.8575	2.33	5.00
	Employee	187	3.5633	.5896	4.312E-02	3.4782	3.6483	1.00	5.00
	Management	14	3.5238	.5345	.1429	3.2152	3.8324	2.67	4.33
	Government	48	3.4028	.4236	6.115E-02	3.2798	3.5258	2.67	4.33
	Self employed	5	3.4667	.5055	.2261	2.8390	4.0944	3.00	4.00
	Other	4	3.2500	.3191	.1596	2.7422	3.7578	3.00	3.67
	Total	400	3.6033	.6071	3.036E-02	3.5437	3.6630	1.00	5.00

Table D-9: The Analysis of Marketing Mix Elements when Segmented by Occupation by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMDI	Between Groups	6.664	5	1.333	4.233	.001
	Within Groups	124.066	394	.315		
	Total	130.731	399			
SUMPR	Between Groups	2.314	5	.463	1.772	.117
	Within Groups	102.864	394	.261		
	Total	105.178	399			
SUMSI	Between Groups	7.802	5	1.560	4.149	.001
	Within Groups	148.171	394	.376		
	Total	155.973	399			
SUMAD	Between Groups	5.822	5	1.164	3.248	.007
	Within Groups	141.241	394	.358		
	Total	147.062	399			

Multiple Comparisons

Dependent Variable: SUMDI

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	3.353E-02	6.246E-02	.592	-8.9270E-02	.1563
	Management	7.478E-02	.1572	.635	-.2343	.3838
	Government	.4041*	9.369E-02	.000	.2200	.5883
	Self employed	-.1347	.2553	.598	-.6367	.3672
	Other	.2653	.2845	.352	-.2941	.8246
Employee	Student	-3.3529E-02	6.246E-02	.592	-.1563	8.927E-02
	Management	4.125E-02	.1555	.791	-.2644	.3469
	Government	.3706*	9.080E-02	.000	.1921	.5491
	Self employed	-.1683	.2543	.509	-.6682	.3317
	Other	.2317	.2836	.414	-.3258	.7892
Management	Student	-7.4782E-02	.1572	.635	-.3838	.2343
	Employee	-4.1253E-02	.1555	.791	-.3469	.2644
	Government	.3294	.1704	.054	-5.7350E-03	.6645
	Self employed	-.2095	.2924	.474	-.7843	.3652
	Other	.1905	.3181	.550	-.4350	.8159
Government	Student	-.4041*	9.369E-02	.000	-.5883	-.2200
	Employee	-.3706*	9.080E-02	.000	-.5491	-.1921
	Management	-.3294	.1704	.054	-.6645	5.735E-03
	Self employed	-.5389*	.2637	.042	-1.0573	-2.0452E-02
	Other	-.1389	.2920	.635	-.7130	.4352
Self employed	Student	.1347	.2553	.598	-.3672	.6367
	Employee	.1683	.2543	.509	-.3317	.6682
	Management	.2095	.2924	.474	-.3652	.7843
	Government	.5389*	.2637	.042	2.045E-02	1.0573
	Other	.4000	.3764	.289	-.3401	1.1401
Other	Student	-.2653	.2845	.352	-.8246	.2941
	Employee	-.2317	.2836	.414	-.7892	.3258
	Management	-.1905	.3181	.550	-.8159	.4350
	Government	.1389	.2920	.635	-.4352	.7130
	Self employed	-.4000	.3764	.289	-1.1401	.3401

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMPR

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	-4.1739E-02	5.687E-02	.463	-.1536	7.008E-02
	Management	-.2025	.1431	.158	-.4839	7.885E-02
	Government	9.507E-02	8.531E-02	.266	-7.2648E-02	.2628
	Self employed	-.2549	.2325	.274	-.7120	.2022
	Other	.4284	.2591	.099	-8.0892E-02	.9377
Employee	Student	4.174E-02	5.687E-02	.463	-7.0076E-02	.1536
	Management	-.1608	.1416	.257	-.4392	.1175
	Government	.1368	8.268E-02	.099	-2.5731E-02	.2993
	Self employed	-.2132	.2315	.358	-.6684	.2420
	Other	.4701	.2582	.069	-3.7471E-02	.9778
Management	Student	.2025	.1431	.158	-7.8850E-02	.4839
	Employee	.1608	.1416	.257	-.1175	.4392
	Government	.2976	.1552	.056	-7.5067E-03	.6027
	Self employed	-5.2381E-02	.2662	.844	-.5757	.4710
	Other	.6310*	.2897	.030	6.143E-02	1.2005
Government	Student	-9.5070E-02	8.531E-02	.266	-.2628	7.265E-02
	Employee	-.1368	8.268E-02	.099	-.2993	2.573E-02
	Management	-.2976	.1552	.056	-.6027	7.507E-03
	Self employed	-.3500	.2401	.146	-.8221	.1221
	Other	.3333	.2659	.211	-.1894	.8561
Self employed	Student	.2549	.2325	.274	-.2022	.7120
	Employee	.2132	.2315	.358	-.2420	.6684
	Management	5.238E-02	.2662	.844	-.4710	.5757
	Government	.3500	.2401	.146	-.1221	.8221
	Other	.6833*	.3428	.047	9.467E-03	1.3572
Other	Student	-.4284	.2591	.099	-.9377	8.089E-02
	Employee	-.4701	.2582	.069	-.9778	3.747E-02
	Management	-.6310*	.2897	.030	-1.2005	-6.1431E-02
	Government	-.3333	.2659	.211	-.8561	.1894
	Self employed	-.6833*	.3428	.047	-1.3572	-9.4667E-03

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMSI

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.2177*	6.826E-02	.002	8.346E-02	.3519
	Management	.3659*	.1718	.034	2.813E-02	.7036
	Government	.3758*	.1024	.000	.1745	.5771
	Self employed	.4897	.2790	.080	-5.8918E-02	1.0383
	Other	.3897	.3109	.211	-.2216	1.0009
Employee	Student	-.2177*	6.826E-02	.002	-.3519	-8.3458E-02
	Management	.1482	.1699	.384	-.1859	.4823
	Government	.1581	9.923E-02	.112	-3.6954E-02	.3532
	Self employed	.2720	.2779	.328	-.2743	.8184
	Other	.1720	.3099	.579	-.4372	.7812
Management	Student	-.3659*	.1718	.034	-.7036	-2.8130E-02
	Employee	-.1482	.1699	.384	-.4823	.1859
	Government	9.921E-03	.1863	.958	-.3563	.3761
	Self employed	.1238	.3195	.699	-.5043	.7519
	Other	2.381E-02	.3477	.945	-.6597	.7073
Government	Student	-.3758*	.1024	.000	-.5771	-.1745
	Employee	-.1581	9.923E-02	.112	-.3532	3.695E-02
	Management	-9.9206E-03	.1863	.958	-.3761	.3563
	Self employed	.1139	.2882	.693	-.4527	.6805
	Other	1.389E-02	.3191	.965	-.6135	.6413
Self employed	Student	-.4897	.2790	.080	-1.0383	5.892E-02
	Employee	-.2720	.2779	.328	-.8184	.2743
	Management	-.1238	.3195	.699	-.7519	.5043
	Government	-.1139	.2882	.693	-.6805	.4527
	Other	-.1000	.4114	.808	-.9088	.7088
Other	Student	-.3897	.3109	.211	-1.0009	.2216
	Employee	-.1720	.3099	.579	-.7812	.4372
	Management	-2.3810E-02	.3477	.945	-.7073	.6597
	Government	-1.3889E-02	.3191	.965	-.6413	.6135
	Self employed	.1000	.4114	.808	-.7088	.9088

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: SUMAD

LSD

(I) OCC	(J) OCC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Employee	.1832*	6.664E-02	.006	5.218E-02	.3142
	Management	.2227	.1677	.185	-.1071	.5524
	Government	.3437*	9.996E-02	.001	.1472	.5402
	Self employed	.2798	.2724	.305	-.2558	.8154
	Other	.4965	.3036	.103	-.1003	1.0933
Employee	Student	-.1832*	6.664E-02	.006	-.3142	-5.2176E-02
	Management	3.947E-02	.1659	.812	-.2867	.3656
	Government	.1605	9.688E-02	.098	-2.9960E-02	.3510
	Self employed	9.661E-02	.2713	.722	-.4368	.6300
	Other	.3133	.3026	.301	-.2815	.9081
Management	Student	-.2227	.1677	.185	-.5524	.1071
	Employee	-3.9470E-02	.1659	.812	-.3656	.2867
	Government	.1210	.1819	.506	-.2365	.4786
	Self employed	5.714E-02	.3119	.855	-.5561	.6704
	Other	.2738	.3394	.420	-.3935	.9412
Government	Student	-.3437*	9.996E-02	.001	-.5402	-.1472
	Employee	-.1605	9.688E-02	.098	-.3510	2.996E-02
	Management	-.1210	.1819	.506	-.4786	.2365
	Self employed	-6.3889E-02	.2814	.820	-.6170	.4893
	Other	.1528	.3116	.624	-.4598	.7654
Self employed	Student	-.2798	.2724	.305	-.8154	.2558
	Employee	-9.6613E-02	.2713	.722	-.6300	.4368
	Management	-5.7143E-02	.3119	.855	-.6704	.5561
	Government	6.389E-02	.2814	.820	-.4893	.6170
	Other	.2167	.4016	.590	-.5730	1.0063
Other	Student	-.4965	.3036	.103	-1.0933	.1003
	Employee	-.3133	.3026	.301	-.9081	.2815
	Management	-.2738	.3394	.420	-.9412	.3935
	Government	-.1528	.3116	.624	-.7654	.4598
	Self employed	-.2167	.4016	.590	-1.0063	.5730

*. The mean difference is significant at the .05 level.

Table D-10: The Analysis of Brand Value and Its Elements when Segmented by Income Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPP	10,000 or less	170	2.9686	.7136	5.473E-02	2.8606	3.0767	1.00	4.67
	10,001 - 20,000	129	2.9793	.7129	6.277E-02	2.8551	3.1035	1.00	5.00
	20,001 - 30,000	62	2.9194	.5354	6.800E-02	2.7834	3.0553	1.00	4.33
	30,001 - 40,000	17	2.7843	.8328	.2020	2.3561	3.2125	1.00	4.00
	40,001 or more	22	2.5000	.6958	.1483	2.1915	2.8085	1.33	4.00
	Total	400	2.9308	.6988	3.494E-02	2.8621	2.9995	1.00	5.00
SUMBX	10,000 or less	170	4.0608	.6534	5.011E-02	3.9619	4.1597	1.67	5.00
	10,001 - 20,000	129	3.8630	.6570	5.784E-02	3.7486	3.9775	1.00	5.00
	20,001 - 30,000	62	3.9086	.7171	9.108E-02	3.7265	4.0907	1.00	5.00
	30,001 - 40,000	17	3.8039	.6461	.1567	3.4717	4.1361	3.00	5.00
	40,001 or more	22	3.5606	.7156	.1526	3.2433	3.8779	2.00	5.00
	Total	400	3.9350	.6772	3.386E-02	3.8684	4.0016	1.00	5.00
BV	10,000 or less	170	3.5147	.5060	3.881E-02	3.4381	3.5913	2.00	4.67
	10,001 - 20,000	129	3.4212	.5497	4.839E-02	3.3254	3.5169	2.00	5.00
	20,001 - 30,000	62	3.4140	.4584	5.822E-02	3.2976	3.5304	1.67	4.67
	30,001 - 40,000	17	3.2941	.5481	.1329	3.0123	3.5759	2.50	4.50
	40,001 or more	22	3.0303	.4815	.1027	2.8168	3.2438	2.17	4.00
	Total	400	3.4329	.5239	2.619E-02	3.3814	3.4844	1.67	5.00

Table D-10: The Analysis of Brand Value and Its Elements when Segmented by Income Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPP	Between Groups	5.003	4	1.251	2.602	.036
	Within Groups	189.861	395	.481		
	Total	194.864	399			
SUMBX	Between Groups	6.777	4	1.694	3.798	.005
	Within Groups	176.200	395	.446		
	Total	182.977	399			
BV	Between Groups	5.071	4	1.268	4.795	.001
	Within Groups	104.435	395	.264		
	Total	109.505	399			

Multiple Comparisons

LSD

Dependent Variable	(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SUMPP	10,000 or less	10,001 - 20,000	-1.0701E-02	8.095E-02	.895	-.1699	.1485
		20,001 - 30,000	4.927E-02	.1029	.632	-.1529	.2515
		30,001 - 40,000	.1843	.1764	.297	-.1624	.5310
		40,001 or more	.4686*	.1571	.003	.1598	.7775
	10,001 - 20,000	10,000 or less	1.070E-02	8.095E-02	.895	-.1485	.1699
		20,001 - 30,000	5.997E-02	.1071	.576	-.1507	.2706
		30,001 - 40,000	.1950	.1789	.276	-.1567	.5467
		40,001 or more	.4793*	.1599	.003	.1649	.7937
	20,001 - 30,000	10,000 or less	-4.9273E-02	.1029	.632	-.2515	.1529
		10,001 - 20,000	-5.9973E-02	.1071	.576	-.2706	.1507
		30,001 - 40,000	.1350	.1898	.477	-.2381	.5082
		40,001 or more	.4194*	.1720	.015	8.111E-02	.7576
	30,001 - 40,000	10,000 or less	-.1843	.1764	.297	-.5310	.1624
		10,001 - 20,000	-.1950	.1789	.276	-.5467	.1567
		20,001 - 30,000	-.1350	.1898	.477	-.5082	.2381
		40,001 or more	.2843	.2239	.205	-.1558	.7245
	40,001 or more	10,000 or less	-.4686*	.1571	.003	-.7775	-.1598
		10,001 - 20,000	-.4793*	.1599	.003	-.7937	-.1649
		20,001 - 30,000	-.4194*	.1720	.015	-.7576	-8.1109E-02
		30,001 - 40,000	-.2843	.2239	.205	-.7245	.1558
SUMBX	10,000 or less	10,001 - 20,000	.1977*	7.799E-02	.012	4.441E-02	.3511
		20,001 - 30,000	.1522	9.909E-02	.125	-4.2627E-02	.3470
		30,001 - 40,000	.2569	.1699	.131	-7.7146E-02	.5909
		40,001 or more	.5002*	.1513	.001	.2027	.7977
	10,001 - 20,000	10,000 or less	-.1977*	7.799E-02	.012	-.3511	-4.4414E-02
		20,001 - 30,000	-4.5553E-02	.1032	.659	-.2485	.1574
		30,001 - 40,000	5.913E-02	.1723	.732	-.2797	.3979
		40,001 or more	.3024	.1541	.050	-4.3491E-04	.6053
	20,001 - 30,000	10,000 or less	-.1522	9.909E-02	.125	-.3470	4.263E-02
		10,001 - 20,000	4.555E-02	.1032	.659	-.1574	.2485
		30,001 - 40,000	.1047	.1829	.567	-.2548	.4642
		40,001 or more	.3480*	.1657	.036	2.215E-02	.6738
	30,001 - 40,000	10,000 or less	-.2569	.1699	.131	-.5909	7.715E-02
		10,001 - 20,000	-5.9128E-02	.1723	.732	-.3979	.2797
		20,001 - 30,000	-.1047	.1829	.567	-.4642	.2548
		40,001 or more	.2433	.2157	.260	-.1807	.6673
	40,001 or more	10,000 or less	-.5002*	.1513	.001	-.7977	-.2027
		10,001 - 20,000	-.3024	.1541	.050	-.6053	4.349E-04
		20,001 - 30,000	-.3480*	.1657	.036	-.6738	-2.2146E-02
		30,001 - 40,000	-.2433	.2157	.260	-.6673	.1807

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: BV

LSD

(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
10,000 or less	10,001 - 20,000	9.352E-02	6.004E-02	.120	-2.4520E-02	.2116
	20,001 - 30,000	.1007	7.629E-02	.187	-4.9251E-02	.2507
	30,001 - 40,000	.2206	.1308	.092	-3.6556E-02	.4777
	40,001 or more	.4844*	.1165	.000	.2554	.7134
10,001 - 20,000	10,000 or less	-9.3517E-02	6.004E-02	.120	-.2116	2.452E-02
	20,001 - 30,000	7.210E-03	7.946E-02	.928	-.1490	.1634
	30,001 - 40,000	.1271	.1327	.339	-.1338	.3879
	40,001 or more	.3909*	.1186	.001	.1577	.6241
20,001 - 30,000	10,000 or less	-.1007	7.629E-02	.187	-.2507	4.925E-02
	10,001 - 20,000	-7.2101E-03	7.946E-02	.928	-.1634	.1490
	30,001 - 40,000	.1199	.1408	.395	-.1569	.3966
	40,001 or more	.3837*	.1276	.003	.1328	.6345
30,001 - 40,000	10,000 or less	-.2206	.1308	.092	-.4777	3.656E-02
	10,001 - 20,000	-.1271	.1327	.339	-.3879	.1338
	20,001 - 30,000	-.1199	.1408	.395	-.3966	.1569
	40,001 or more	.2638	.1660	.113	-6.2624E-02	.5903
40,001 or more	10,000 or less	-.4844*	.1165	.000	-.7134	-.2554
	10,001 - 20,000	-.3909*	.1186	.001	-.6241	-.1577
	20,001 - 30,000	-.3837*	.1276	.003	-.6345	-.1328
	30,001 - 40,000	-.2638	.1660	.113	-.5903	6.262E-02

*. The mean difference is significant at the .05 level.

Table D-11: The Analysis of Brand Equity and Its Dimensions when Segmented by Income Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMPQ	10,000 or less	170	3.7431	.6111	4.687E-02	3.6506	3.8357	1.33	5.00
	10,001 - 20,000	129	3.6899	.5670	4.992E-02	3.5911	3.7887	2.00	5.00
	20,001 - 30,000	62	3.7796	.4975	6.318E-02	3.6532	3.9059	1.67	4.67
	30,001 - 40,000	17	3.6863	.5461	.1324	3.4055	3.9670	2.67	4.67
	40,001 or more	22	3.5455	.5869	.1251	3.2853	3.8057	2.67	4.33
	Total	400	3.7183	.5762	2.881E-02	3.6617	3.7750	1.33	5.00
SUMBL	10,000 or less	170	3.3902	.8612	6.605E-02	3.2598	3.5206	1.00	5.00
	10,001 - 20,000	129	3.3669	.8659	7.624E-02	3.2161	3.5178	1.00	5.00
	20,001 - 30,000	62	3.3710	.7872	9.997E-02	3.1711	3.5709	1.00	5.00
	30,001 - 40,000	17	3.1765	1.0416	.2526	2.6409	3.7120	1.00	5.00
	40,001 or more	22	3.1212	.9117	.1944	2.7170	3.5254	1.67	4.67
	Total	400	3.3558	.8612	4.306E-02	3.2712	3.4405	1.00	5.00
SUMBA	10,000 or less	170	3.9294	.6509	4.992E-02	3.8309	4.0280	2.33	5.00
	10,001 - 20,000	129	3.8217	.6589	5.801E-02	3.7069	3.9365	1.33	5.00
	20,001 - 30,000	62	3.8763	.5270	6.693E-02	3.7425	4.0102	2.67	5.00
	30,001 - 40,000	17	3.7059	.4697	.1139	3.4644	3.9474	2.33	4.33
	40,001 or more	22	3.8485	.5011	.1068	3.6263	4.0707	2.67	4.67
	Total	400	3.8725	.6218	3.109E-02	3.8114	3.9336	1.33	5.00
BE	10,000 or less	170	3.6876	.5865	4.498E-02	3.5988	3.7764	2.11	5.00
	10,001 - 20,000	129	3.6262	.5871	5.169E-02	3.5239	3.7285	1.56	5.00
	20,001 - 30,000	62	3.6756	.5007	6.359E-02	3.5485	3.8028	2.22	4.67
	30,001 - 40,000	17	3.5229	.5903	.1432	3.2194	3.8264	2.56	4.56
	40,001 or more	22	3.5051	.5683	.1212	3.2531	3.7570	2.56	4.33
	Total	400	3.6489	.5730	2.865E-02	3.5926	3.7052	1.56	5.00

Table D-11: The Analysis of Brand Equity and Its Dimensions when Segmented by Income Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMPQ	Between Groups	1.116	4	.279	.839	.501
	Within Groups	131.372	395	.333		
	Total	132.488	399			
SUMBL	Between Groups	1.989	4	.497	.668	.614
	Within Groups	293.920	395	.744		
	Total	295.909	399			
SUMBA	Between Groups	1.369	4	.342	.884	.473
	Within Groups	152.906	395	.387		
	Total	154.275	399			
BE	Between Groups	1.090	4	.273	.829	.507
	Within Groups	129.894	395	.329		
	Total	130.985	399			

Multiple Comparisons

LSD

Dependent Variable	(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SUMPQ	10,000 or less	10,001 - 20,000	5.321E-02	6.734E-02	.430	-7.9173E-02	.1856
		20,001 - 30,000	-3.6433E-02	8.556E-02	.670	-.2046	.1318
		30,001 - 40,000	5.686E-02	.1467	.699	-.2315	.3453
		40,001 or more	.1977	.1307	.131	-5.9208E-02	.4546
	10,001 - 20,000	10,000 or less	-5.3215E-02	6.734E-02	.430	-.1856	7.917E-02
		20,001 - 30,000	-8.9647E-02	8.912E-02	.315	-.2649	8.556E-02
		30,001 - 40,000	3.648E-03	.1488	.980	-.2889	.2962
		40,001 or more	.1445	.1330	.278	-.1171	.4060
	20,001 - 30,000	10,000 or less	3.643E-02	8.556E-02	.670	-.1318	.2046
		10,001 - 20,000	8.965E-02	8.912E-02	.315	-8.5563E-02	.2649
		30,001 - 40,000	9.330E-02	.1579	.555	-.2171	.4037
		40,001 or more	.2341	.1431	.103	-4.7247E-02	.5155
	30,001 - 40,000	10,000 or less	-5.6863E-02	.1467	.699	-.3453	.2315
		10,001 - 20,000	-3.6480E-03	.1488	.980	-.2962	.2889
		20,001 - 30,000	-9.3295E-02	.1579	.555	-.4037	.2171
		40,001 or more	.1408	.1862	.450	-.2253	.5069
	40,001 or more	10,000 or less	-.1977	.1307	.131	-.4546	5.921E-02
		10,001 - 20,000	-.1445	.1330	.278	-.4060	.1171
		20,001 - 30,000	-.2341	.1431	.103	-.5155	4.725E-02
		30,001 - 40,000	-.1408	.1862	.450	-.5069	.2253
SUMBL	10,000 or less	10,001 - 20,000	2.327E-02	.1007	.817	-.1748	.2213
		20,001 - 30,000	1.923E-02	.1280	.881	-.2324	.2708
		30,001 - 40,000	.2137	.2194	.331	-.2177	.6451
		40,001 or more	.2690	.1954	.170	-.1153	.6532
	10,001 - 20,000	10,000 or less	-2.3271E-02	.1007	.817	-.2213	.1748
		20,001 - 30,000	-4.0427E-03	.1333	.976	-.2661	.2580
		30,001 - 40,000	.1905	.2226	.393	-.2471	.6280
		40,001 or more	.2457	.1990	.218	-.1455	.6369
	20,001 - 30,000	10,000 or less	-1.9228E-02	.1280	.881	-.2708	.2324
		10,001 - 20,000	4.043E-03	.1333	.976	-.2580	.2661
		30,001 - 40,000	.1945	.2362	.411	-.2698	.6588
		40,001 or more	.2498	.2141	.244	-.1711	.6706
	30,001 - 40,000	10,000 or less	-.2137	.2194	.331	-.6451	.2177
		10,001 - 20,000	-.1905	.2226	.393	-.6280	.2471
		20,001 - 30,000	-.1945	.2362	.411	-.6588	.2698
		40,001 or more	5.526E-02	.2786	.843	-.4924	.6029
	40,001 or more	10,000 or less	-.2690	.1954	.170	-.6532	.1153
		10,001 - 20,000	-.2457	.1990	.218	-.6369	.1455
		20,001 - 30,000	-.2498	.2141	.244	-.6706	.1711
		30,001 - 40,000	-5.5258E-02	.2786	.843	-.6029	.4924

Multiple Comparisons

LSD

Dependent Variable	(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SUMBA	10,000 or less	10,001 - 20,000	.1077	7.265E-02	.139	-3.5121E-02	.2505
		20,001 - 30,000	5.307E-02	9.231E-02	.566	-.1284	.2345
		30,001 - 40,000	.2235	.1583	.159	-8.7618E-02	.5347
		40,001 or more	8.093E-02	.1410	.566	-.1962	.3581
	10,001 - 20,000	10,000 or less	-.1077	7.265E-02	.139	-.2505	3.512E-02
		20,001 - 30,000	-5.4639E-02	9.615E-02	.570	-.2437	.1344
		30,001 - 40,000	.1158	.1605	.471	-.1998	.4314
		40,001 or more	-2.6779E-02	.1435	.852	-.3089	.2554
	20,001 - 30,000	10,000 or less	-5.3068E-02	9.231E-02	.566	-.2345	.1284
		10,001 - 20,000	5.464E-02	9.615E-02	.570	-.1344	.2437
		30,001 - 40,000	.1705	.1703	.318	-.1644	.5053
		40,001 or more	2.786E-02	.1544	.857	-.2757	.3314
	30,001 - 40,000	10,000 or less	-.2235	.1583	.159	-.5347	8.762E-02
		10,001 - 20,000	-.1158	.1605	.471	-.4314	.1998
		20,001 - 30,000	-.1705	.1703	.318	-.5053	.1644
		40,001 or more	-.1426	.2009	.478	-.5376	.2524
	40,001 or more	10,000 or less	-8.0927E-02	.1410	.566	-.3581	.1962
		10,001 - 20,000	2.678E-02	.1435	.852	-.2554	.3089
		20,001 - 30,000	-2.7859E-02	.1544	.857	-.3314	.2757
		30,001 - 40,000	.1426	.2009	.478	-.2524	.5376
BE	10,000 or less	10,001 - 20,000	6.140E-02	6.696E-02	.360	-7.0244E-02	.1930
		20,001 - 30,000	1.195E-02	8.508E-02	.888	-.1553	.1792
		30,001 - 40,000	.1647	.1459	.260	-.1221	.4515
		40,001 or more	.1825	.1299	.161	-7.2911E-02	.4380
	10,001 - 20,000	10,000 or less	-6.1397E-02	6.696E-02	.360	-.1930	7.024E-02
		20,001 - 30,000	-4.9443E-02	8.862E-02	.577	-.2237	.1248
		30,001 - 40,000	.1033	.1480	.485	-.1876	.3942
		40,001 or more	.1211	.1323	.360	-.1389	.3812
	20,001 - 30,000	10,000 or less	-1.1954E-02	8.508E-02	.888	-.1792	.1553
		10,001 - 20,000	4.944E-02	8.862E-02	.577	-.1248	.2237
		30,001 - 40,000	.1528	.1570	.331	-.1559	.4614
		40,001 or more	.1706	.1423	.231	-.1092	.4504
	30,001 - 40,000	10,000 or less	-.1647	.1459	.260	-.4515	.1221
		10,001 - 20,000	-.1033	.1480	.485	-.3942	.1876
		20,001 - 30,000	-.1528	.1570	.331	-.4614	.1559
		40,001 or more	1.783E-02	.1852	.923	-.3462	.3819
	40,001 or more	10,000 or less	-.1825	.1299	.161	-.4380	7.291E-02
		10,001 - 20,000	-.1211	.1323	.360	-.3812	.1389
		20,001 - 30,000	-.1706	.1423	.231	-.4504	.1092
		30,001 - 40,000	-1.7825E-02	.1852	.923	-.3819	.3462

Table D-12: The Analysis of Marketing Mix Elements when Segmented by Income Level by Using Analysis of Variance (ANOVA)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
SUMDI	10,000 or less	170	3.5451	.5602	4.297E-02	3.4603	3.6299	1.33	5.00
	10,001 - 20,000	129	3.5969	.6133	5.400E-02	3.4901	3.7037	2.00	5.00
	20,001 - 30,000	62	3.4516	.5300	6.731E-02	3.3170	3.5862	2.33	5.00
	30,001 - 40,000	17	3.2941	.4546	.1103	3.0604	3.5279	2.00	4.00
	40,001 or more	22	3.4394	.5763	.1229	3.1839	3.6949	2.67	4.67
	Total	400	3.5308	.5724	2.862E-02	3.4746	3.5871	1.33	5.00
SUMPR	10,000 or less	170	3.3745	.5307	4.070E-02	3.2942	3.4549	2.00	4.67
	10,001 - 20,000	129	3.3282	.5034	4.432E-02	3.2405	3.4159	2.33	4.67
	20,001 - 30,000	62	3.4731	.5105	6.484E-02	3.3435	3.6028	2.33	5.00
	30,001 - 40,000	17	3.2353	.4042	9.804E-02	3.0275	3.4431	2.33	4.00
	40,001 or more	22	3.1970	.4787	.1021	2.9847	3.4092	2.33	4.00
	Total	400	3.3592	.5134	2.567E-02	3.3087	3.4096	2.00	5.00
SUMSI	10,000 or less	170	3.4706	.6828	5.237E-02	3.3672	3.5740	1.33	5.00
	10,001 - 20,000	129	3.3979	.6082	5.355E-02	3.2920	3.5039	2.00	5.00
	20,001 - 30,000	62	3.2957	.5090	6.464E-02	3.1664	3.4249	1.33	4.33
	30,001 - 40,000	17	3.1373	.4419	.1072	2.9101	3.3645	2.33	4.00
	40,001 or more	22	3.1212	.5592	.1192	2.8733	3.3691	2.00	4.33
	Total	400	3.3867	.6252	3.126E-02	3.3252	3.4481	1.33	5.00
SUMAD	10,000 or less	170	3.6980	.6124	4.697E-02	3.6053	3.7908	2.33	5.00
	10,001 - 20,000	129	3.5762	.6357	5.597E-02	3.4655	3.6870	1.00	5.00
	20,001 - 30,000	62	3.4839	.5285	6.712E-02	3.3497	3.6181	2.33	4.33
	30,001 - 40,000	17	3.4706	.5535	.1342	3.1860	3.7552	2.00	4.00
	40,001 or more	22	3.4697	.5696	.1214	3.2172	3.7222	2.67	5.00
	Total	400	3.6033	.6071	3.036E-02	3.5437	3.6630	1.00	5.00

Table D-12: The Analysis of Marketing Mix Elements when Segmented by Income Level by Using Analysis of Variance (ANOVA) (cont.)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SUMDI	Between Groups	2.123	4	.531	1.630	.166
	Within Groups	128.608	395	.326		
	Total	130.731	399			
SUMPR	Between Groups	1.809	4	.452	1.728	.143
	Within Groups	103.369	395	.262		
	Total	105.177	399			
SUMSI	Between Groups	4.334	4	1.084	2.823	.025
	Within Groups	151.639	395	.384		
	Total	155.973	399			
SUMAD	Between Groups	3.197	4	.799	2.194	.069
	Within Groups	143.865	395	.364		
	Total	147.062	399			

Multiple Comparisons

LSD

Dependent Variable	(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SUMDI	10,000 or less	10,001 - 20,000	-5.1801E-02	6.663E-02	.437	-.1828	7.919E-02
		20,001 - 30,000	9.349E-02	8.466E-02	.270	-7.2948E-02	.2599
		30,001 - 40,000	.2510	.1451	.085	-3.4376E-02	.5363
		40,001 or more	.1057	.1293	.414	-.1485	.3599
	10,001 - 20,000	10,000 or less	5.180E-02	6.663E-02	.437	-7.9187E-02	.1828
		20,001 - 30,000	.1453	8.818E-02	.100	-2.8071E-02	.3186
		30,001 - 40,000	.3028*	.1472	.040	1.333E-02	.5922
		40,001 or more	.1575	.1316	.232	-.1013	.4163
	20,001 - 30,000	10,000 or less	-9.3485E-02	8.466E-02	.270	-.2599	7.295E-02
		10,001 - 20,000	-.1453	8.818E-02	.100	-.3186	2.807E-02
		30,001 - 40,000	.1575	.1562	.314	-.1496	.4646
		40,001 or more	1.222E-02	.1416	.931	-.2662	.2906
	30,001 - 40,000	10,000 or less	-.2510	.1451	.085	-.5363	3.438E-02
		10,001 - 20,000	-.3028*	.1472	.040	-.5922	-1.3332E-02
		20,001 - 30,000	-.1575	.1562	.314	-.4646	.1496
		40,001 or more	-.1453	.1843	.431	-.5075	.2170
	40,001 or more	10,000 or less	-.1057	.1293	.414	-.3599	.1485
		10,001 - 20,000	-.1575	.1316	.232	-.4163	.1013
		20,001 - 30,000	-1.2219E-02	.1416	.931	-.2906	.2662
		30,001 - 40,000	.1453	.1843	.431	-.2170	.5075
SUMPR	10,000 or less	10,001 - 20,000	4.634E-02	5.973E-02	.438	-7.1089E-02	.1638
		20,001 - 30,000	-9.8608E-02	7.590E-02	.195	-.2478	5.060E-02
		30,001 - 40,000	.1392	.1301	.285	-.1166	.3950
		40,001 or more	.1775	.1159	.126	-5.0332E-02	.4054
	10,001 - 20,000	10,000 or less	-4.6344E-02	5.973E-02	.438	-.1638	7.109E-02
		20,001 - 30,000	-.1450	7.905E-02	.067	-.3004	1.047E-02
		30,001 - 40,000	9.287E-02	.1320	.482	-.1666	.3524
		40,001 or more	.1312	.1180	.267	-.1008	.3632
	20,001 - 30,000	10,000 or less	9.861E-02	7.590E-02	.195	-5.0602E-02	.2478
		10,001 - 20,000	.1450	7.905E-02	.067	-1.0466E-02	.3004
		30,001 - 40,000	.2378	.1401	.090	-3.7516E-02	.5132
		40,001 or more	.2761*	.1269	.030	2.657E-02	.5257
	30,001 - 40,000	10,000 or less	-.1392	.1301	.285	-.3950	.1166
		10,001 - 20,000	-9.2871E-02	.1320	.482	-.3524	.1666
		20,001 - 30,000	-.2378	.1401	.090	-.5132	3.752E-02
		40,001 or more	3.832E-02	.1652	.817	-.2864	.3631
	40,001 or more	10,000 or less	-.1775	.1159	.126	-.4054	5.033E-02
		10,001 - 20,000	-.1312	.1180	.267	-.3632	.1008
		20,001 - 30,000	-.2761*	.1269	.030	-.5257	-2.6569E-02
		30,001 - 40,000	-3.8324E-02	.1652	.817	-.3631	.2864

*. The mean difference is significant at the .05 level.

Multiple Comparisons

LSD

Dependent Variable	(I) INC	(J) INC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SUMSI	10,000 or less	10,001 - 20,000	7.266E-02	7.235E-02	.316	-6.9579E-02	.2149
		20,001 - 30,000	.1749	9.192E-02	.058	-5.8328E-03	.3556
		30,001 - 40,000	.3333*	.1576	.035	2.348E-02	.6432
		40,001 or more	.3494*	.1404	.013	7.338E-02	.6254
	10,001 - 20,000	10,000 or less	-7.2655E-02	7.235E-02	.316	-.2149	6.958E-02
		20,001 - 30,000	.1022	9.575E-02	.286	-8.6007E-02	.2905
		30,001 - 40,000	.2607	.1599	.104	-5.3622E-02	.5750
		40,001 or more	.2767	.1429	.054	-4.2557E-03	.5577
	20,001 - 30,000	10,000 or less	-.1749	9.192E-02	.058	-.3556	5.833E-03
		10,001 - 20,000	-.1022	9.575E-02	.286	-.2905	8.601E-02
		30,001 - 40,000	.1584	.1696	.351	-.1750	.4919
		40,001 or more	.1745	.1538	.257	-.1278	.4768
	30,001 - 40,000	10,000 or less	-.3333*	.1576	.035	-.6432	-2.3478E-02
		10,001 - 20,000	-.2607	.1599	.104	-.5750	5.362E-02
		20,001 - 30,000	-.1584	.1696	.351	-.4919	.1750
		40,001 or more	1.604E-02	.2001	.936	-.3773	.4094
	40,001 or more	10,000 or less	-.3494*	.1404	.013	-.6254	-7.3380E-02
		10,001 - 20,000	-.2767	.1429	.054	-.5577	4.256E-03
		20,001 - 30,000	-.1745	.1538	.257	-.4768	.1278
		30,001 - 40,000	-1.6043E-02	.2001	.936	-.4094	.3773
SUMAD	10,000 or less	10,001 - 20,000	.1218	7.047E-02	.085	-1.6729E-02	.2604
		20,001 - 30,000	.2142*	8.954E-02	.017	3.814E-02	.3902
		30,001 - 40,000	.2275	.1535	.139	-7.4358E-02	.5293
		40,001 or more	.2283	.1367	.096	-4.0486E-02	.4972
	10,001 - 20,000	10,000 or less	-.1218	7.047E-02	.085	-.2604	1.673E-02
		20,001 - 30,000	9.236E-02	9.326E-02	.323	-9.0996E-02	.2757
		30,001 - 40,000	.1056	.1557	.498	-.2005	.4118
		40,001 or more	.1065	.1392	.445	-.1671	.3802
	20,001 - 30,000	10,000 or less	-.2142*	8.954E-02	.017	-.3902	-3.8139E-02
		10,001 - 20,000	-9.2356E-02	9.326E-02	.323	-.2757	9.100E-02
		30,001 - 40,000	1.328E-02	.1652	.936	-.3115	.3381
		40,001 or more	1.417E-02	.1498	.925	-.2803	.3086
	30,001 - 40,000	10,000 or less	-.2275	.1535	.139	-.5293	7.436E-02
		10,001 - 20,000	-.1056	.1557	.498	-.4118	.2005
		20,001 - 30,000	-1.3283E-02	.1652	.936	-.3381	.3115
		40,001 or more	8.913E-04	.1949	.996	-.3822	.3840
	40,001 or more	10,000 or less	-.2283	.1367	.096	-.4972	4.049E-02
		10,001 - 20,000	-.1065	.1392	.445	-.3802	.1671
		20,001 - 30,000	-1.4174E-02	.1498	.925	-.3086	.2803
		30,001 - 40,000	-8.9127E-04	.1949	.996	-.3840	.3822

*. The mean difference is significant at the .05 level.