THE ANALYSIS OF BRAND EQUITY TO CUSTOMER LOYALTY OF COMPUTER MICROCHIP PROCESSOR

THE CASE STUDY OF AMD AND INTEL

A THESIS

Presented as Partial Fulfilment of the Requirements
To Obtain the Bachelor Degree in Management Department

By

DONI RACHMAWAN

Student Number: 00311464

DEPARTMENT OF MANAGEMENT
INTERNATIONAL PROGRAM
FACULTY OF ECONOMICS
UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA

2007

THE ANALYSIS OF BRAND EQUITY TO CUSTOMER LOYALTY OF COMPUTER MICROCHIP PROCESSOR

THE CASE STUDY OF AMD AND INTEL

By

DONI RACHMAWAN

Student Number: 00311464

Approved by

Content Advisor,

Muchsin Muthohar. Drs. MBA. July 12, 2007

Language Advisor,

Lulu Sylviane. S.Pd. July 12, 2007

THE ANALYSIS OF BRAND EQUITY TO CUSTOMER LOYALTY OF COMPUTER MICROCHIP PROCESSOR

THE CASE STUDY OF AMD AND INTEL

A BACHELOR DEGREE THESIS

By

DONI RACHMAWAN

Student Number: 00311464

Defended before the Board of Examiners
on August 14, 2007
and Declared Acceptable

Board of Examiners

Examiner :

Yazid, Drs. MM

.....

Content Advisor,

Muchsin Muthohar. Drs. MBA.

Yogyakarta August 14, 2007
International Program
Faculty of Economics
Islamic University of Indonesia
Dean

Asmadi Ishak, Drs., M.Bus., Ph,D

DECLARATION OF AUTHENTICITY

Herein I declare the originality of this thesis; I have not presented anyone else's work to obtain my university degree, nor have I presented anyone else's words, ideas or expression without acknowledgement. All quotations are cited and listed in the bibliography of this thesis.

If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation for its consequence.

Yogyakarta, July 12, 2007

Doni Rachmawan

ACKNOWLEDGMENT

Bismillahirrahmanirrahim

In the name of Allah almighty, the most gracious, I would like to express my praise completely to ALLAH SWT for his marvellous love and guidance upon the accomplishment this thesis. My honour also goes to Prophet Muhammad SAW for his blessing and enlightening direction.

Finally, I could finish this project in order to obtain my undergraduate degree in Bachelor of Commerce at International Program, Faculty of Economics, Islamic University of Indonesia.

This thesis is very exhausted to do, without tremendous contribution, supports, and motivation from many parties I believe I can not present this thesis. Hence, I would like to deliver my deepest gratitude, appreciations and admiration to those who always been beside to help and cheers me up:

1. Mr. Muchsin Muthohar. Drs. MBA. as my content advisor for his helpful comments advice and insights. I really thank you for your cooperation during the writing of this thesis. Ms. Lulu Sylviane. S.Pd. as the language advisor, thank you for your precious time spent to share and discusses the thesis with me. Your assistance is very helpful in making my thesis completed. Also Mr. Yazid, Drs. MM as my examiner, thank you for your advice.
2. My mom Zusmeidar and my father Alm. Arlis Achmad. For their Sacrifice, love, patience, and other "pain" they might have during my undergraduate study. To them, I dedicated this thesis.

3. My family: my older sister Ira Rachmawati, and my younger sister Yoana Pitra Rachma, who has been supporting and motivates me. Om Nanung, Mba Lusi, Pio, Lui, Epi and Luvi. Who have been encouraging me to finish my study.
4. My friends – Adin, Afif, Afrizal, Ebet, Galih, and All UII International Program Management dept students 2000. Adib, Deddy, Irfan, Lucky, and all UII International Program students. Ami, Agus, Dimas, and Yusuf from UII Law Faculty 1999. Thanks for this meaningful friendships.
5. Mas Yuska, Mas Agus, Mas Harris, and Bu Dian. My older friend. Thanks for all of your advice.
6. The management and staff of International Program, and others who also deserve credits. I could not repay all your kindness to me and May Allah gives rewards in return.

Alhamdulillahirabbil'alamin

Yogyakarta, August 14, 2007

Doni Rachmawan

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Doni Rachmawan (2007), "The Analysis of Brand Equity to Customer Loyalty of Computer Microchip Processor". Economics Faculty, Management Department, International Program, Universitas Islam Indonesia, Yogyakarta.

It has been commonly accepted that computer needs are no longer subsidiary needs for people in Yogyakarta. The enthusiasm and high response to dynamic of computer trend made computer to be categorized as primary needs instead of secondary as the other city beside Yogyakarta may perceive. In many businesses, the most important assets are the brand name and what that brand represents. Brand becomes important attribute to consider, since the other attribute of competition such as product feature is relatively easy to imitate. This possibly happens since brands contain "intangible value" such as emotion, expectation, belief, and perceived quality. There are several microchip processor brands in the market, but only some of them that customer know well. It is because the promotion and the quality of the products from some brands are better than the others brand, which drive some consumers become reluctant to purchase the unknown brands.

This research was conducted in order to examine the relationship between brand equity (identification, trustworthiness, image, value, and performance) to customer loyalty and to find out the dominant factor of brand equity attributes that influence most to customer loyalty. As several studies on similar topic have been conducted in other countries by using different types of product, this research is expected to provide a replicate study on the analysis of brand equity attributes in relation to the customer loyalty of Indonesian people especially in Yogyakarta.

There are two brands that are evaluated in this research, the AMD and Intel microchip processor. The primary data in this study is collected from a survey of 100 respondents in Yogyakarta, Indonesia. The respondent's rate the brand equity attributes: identification, trustworthiness, image, value, performance and also rate the customer loyalty. Further, all data is evaluated by using multiple linear regressions and simple linier regressions to analyse its effects on the customer loyalty.

Based on the research finding and the analysis, it is found that the brand equity has a significant relationship on the customer loyalty. The most dominant factor of brand equity dimensions on customer loyalty for both AMD and Intel is value. In addition, customers are less considering about trustworthiness variables when they intend to become loyal to the processor product. Both in AMD and Intel trustworthiness are in the lowest rank.

It is concluded that the value is appearing to have the strongest effect to the customer loyalty in computer microchip processor. Therefore, marketers must be prepared and must focus on detail and comprehensive knowledge of the value of their products to be promoted to customer. By understanding the complete information about brand equity, a marketer will be able to make the right strategy and appropriate effort of advertisement or other promotional action to increase the brand equity. Nevertheless, the company should not focus their concern on the value alone, as it is used to be believed as the main factor that will trigger the customer loyalty, but should also optimize the other variables of brand equity, especially performance and image to have the optimum effort of purchasing stimulation. Customer should have adequate knowledge of all information and knowledge of the product before they tend to become loyal to the product. Sometimes the higher price product does not mean higher capabilities compared to lower price products, it depends on the customer's need and aim in using the product.

Doni Rachmawan (2007), "Analisis Ekuitas Merek (Kekuatan Merek) terhadap kesetiaan konsumen pada pasar *processor* : Studi kasus AMD dan Intel di Yogyakarta." Fakultas Ekonomi, Jurusan Menejemen, Program Internasional, Universitas Islam Indonesia, Yogyakarta.

Sudah sewajarnya bahwa kebutuhan akan computer bukanlah merupakan kebutuhan yang sekunder untuk masyarakat Yogyakarta. Antusias dan respon yang tinggi akan *trend* computer yang dinamis membuat computer tersebut dikategorikan menjadi kebutuhan yang pokok. Di kebanyakan bisnis, aset yang paling penting adalah nama merek dan yang mereka tawarkan. Merek menjadi aspek yang sangat penting untuk di pikirkan, dimana atribut persaingan dari sebuah produk sangatlah mudah untuk ditiru. Ini terjadi karena merek mengandung "nilai yang tidak dapat diraba" seperti emosi, harapan, kepercayaan dan mutu yang terasa manfaatnya. Ada banyak merek *microchip processor* di pasar, tapi hanya beberapa saja yang dikenal oleh konsumen. Ini dikarenakan promosi dan kualitas dari beberapa merek lebih baik daripada merek yang lainnya, yang membuat konsumen enggan untuk membeli merek yang tidak mereka kenal.

Penelitian ini dilakukan untuk menguji hubungan antara ekuitas sebuah merek (identifikasi, kepercayaan, kesan, nilai dan kinerja) terhadap loyalitas konsumen dan untuk mengetahui faktor yang paling dominan dari atribut ekuitas merek yang paling mempengaruhi terhadap loyalitas konsumen. Beberapa penelitian dengan topik yang hampir sama yang telah dilakukan di negara lain dengan menggunakan tipe produk yang berbeda, penelitian ini diharapkan dapat memberikan gambaran sebuah analisa dari atribut ekuitas merek yang berhubungan dengan loyalitas konsumen masyarakat Indonesia terutama di Yogyakarta.

Ada dua merek yang di evaluasi di penelitian ini, *AMD* dan *Intel microchip processor.* Data primer di penelitian ini di kumpulkan dari sebuah survey terhadap 100 responden di Yogyakarta. Para responden menilai atribut ekuitas merek yaitu: identifikasi, kepercayaan, kesan, nilai, kinerja dan juga menilai loyalitas konsumen. Lebih jauhnya, semua data di evaluasi dengan menggunakan *regresi linear* berganda dan *regresi linear* sederhana untuk menganalisa efeknya terhadap loyalitas konsumen.

Berdasarkan hasil penelitian dan analisa, ditemukan bahwa ekuitas merek mempunyai hubungan yang berarti terhadap loyalitas konsumen. Faktor yang paling dominan dari dimensi ekuitas merek dari sebuah loyalitas konsumen untuk AMD dan Inter adalah nilai. Konsumen tidak terlalu memikirkan tentang faktor kepercayaan ketika mereka bermaksud untuk menjadi setia kepada sebuah produk *processor.* Kepercayaan merupakan atribut ekuitas merek yang paling rendah di AMD dan Intel.

Bisa disimpulkan bahwa nilai mempunyai efek yang paling kuat terhadap loyalitas konsumen di dalam pasar *computer microchip processor.* Sebab itu, para pemasar harus siap, fokus dan punya pengetahuan yang luas terhadap nilai dari produk mereka yang dipromosikan kepada konsumen. Dengan memahaminya, pemasar dapat menerapkan strategi pemasaran yang benar dan tepat untuk meningkatkan ekuitas merek. Tapi, perusahaan tidak hanya fokus kepada nilai itu saja, yang dipercaya sebagai faktor utama yang dapat menaikkan kesetiaan konsumen, tapi juga harus mengoptimalkan atribut lain dari eukitas merek, terutama kinerja dan kesan untuk dapat meraih tingkat pembelian yang tinggi. Konsumen pun harus mempunyai pengetahuan yang baik tentang sebuah produk sebelum mereka menjadi setia terhadap produk tersebut. Kadang kala produk dengan harga tinggi belum tentu mempunyai kemampuan yang tinggi pula di bandingkan dengan produk dengan harga rendah, tergantung dari kebutuhan dan tujuan dari penggunaan produk itu sendiri.

CHAPTER I

INTRODUCTION

1.1. Background of the Study

It has been commonly accepted that computer needs are no longer subsidiary needs for people in Yogyakarta. The enthusiasm and high response to dynamic of computer trend made computer to be categorized as primary needs instead of secondary as the other city beside Yogyakarta may perceive. Attributes of Yogyakarta as student city is one of many factors that catalyze the growth of computer market these days. The computer trend and its dynamics have pulled many types of customer's attention and kept them attached to the evolvement and addicted to the newest computer's fashion.

There are many brands in computer markets. Each customer has different judgments for each brand. "*How can a brand become very important?*" Brand becomes important attribute to consider, since the other attribute of competition such as product feature is relatively easy to imitate. Another important reason in maintaining and developing brand instead of product, brand is more meaningful. Product only explains the physical attribute including its feature and dimensions, by contrast brand carrying does not only tell the functional value but also explains the emotional relationship of the customer. This possibly happens since brands contain "intangible value" such as emotion, expectation, belief, and perceived quality.

In this term, brand equity was viewed as "*the enhancement in the perceived utility and desirability a brand name confers on a product*". It is consumers' perception of the overall superiority of a product carrying that brand name when compared to other brand. From that, Lassar et al develop a better scale for brand equity, which are ***identification/attachment, trustworthiness, image, value, and performance***, that will be use by the writer in this research.

Customer loyalty is a function of perceived product superiority, personal fortitude, social bonding, and their synergistic effects (Oliver, 1999). Oliver arguments generally support the assertion that measures of loyalty that are constrained only to *repurchase* considerations fail to capture the richness of the loyalty construct. The movement from purchase loyalty (e.g. *repurchase intentions*) toward more holistic conceptualizations of the loyalty construct appears supported in the emerging literature.

The most important assets for many businesses are the brand name and what that brand represents. Consumers tend to buy a familiar brand because they are comfortable with it. There is an assumption that a brand that is familiar is probably reliable. A recognized brand tends to be selected over an unknown brand. There are several microchip processor brands in the market, but only some of them that customer know well. Usually it is because the promotion and the quality of the products from some brands are better than the others brand, which drive some consumers become reluctant to purchase the unknown brands.

A microprocessor is a programmable digital electronic component that incorporates the functions of a central processing unit (CPU) on a single semi

conducting integrated circuit (IC). **Advanced Micro Devices (AMD)**, Inc. is an American manufacturer of integrated circuits based in Sunnyvale, California. A group of former executives from Fairchild Semiconductor founded this company in 1969. It is the world's second-largest supplier of x86 based processors, the largest supplier of discrete graphics products as a result of the merger with ATI Technologies in 2006, and owns a 37% share of Spansion, a supplier of non-volatile flash memory.

Intel Corporation is the world's largest semiconductor company and the inventor of the x86 series of microprocessors, the processors found in many personal computers. Founded in 1968 as **Integrated Electronics** Corporation and based in Santa Clara, California, USA, Intel also makes motherboard chipsets, network cards and ICs, flash memory, graphic chips, embedded processors, and other devices related to communications and computing. Founded by semiconductor pioneers Robert Noyce and Gordon Moore, Intel combines advanced chip design capability with a leading-edge manufacturing capability. Originally known primarily to engineers and technologists, Intel's successful "Intel Inside" advertising campaign of the 1990s made it and its Pentium processor household names.

Both of the company classify their products for server, desktop (PC), and mobile. Both companies also segment their products from low-end products, which usually sold in lower price, up to high-end products, which are usually sold in higher price. Therefore, both companies have a same market's segment.

There are two types of markets associated to the computer's market. The first type of market is an organizational or business market, which could be an organization such as office, university, and school, and could be an organization, which intends to use computer in a business such as reseller and computer store. Many organizations need computers as their business' backbones. They rely all their data processing system fully on the automatic system and simplicity of computers. It is an urgent need for them to always update their computer specifications, so they will be not too far left behind by their competitors. Such as internet cafe, game center, commercial companies that are spread wide all over Yogyakarta and recognized as a very profitable business.

The second type of market is customer or end users, who have many types. It's been a very obvious fact that the numbers of students in Yogyakarta are enormous compared to what the other city may have. Most of university's curriculums, information system, studying activity and not to mention assignment, urge student to frequently use computer in their daily life. We can almost always find a PC inside every student's room in their dorm or home. There are also customers who need computer as their main source for entertainments. They use a PC for listening music, watching movies, and for playing games. The other type of customer is enthusiastic user. It is defined as computer's consumer that getting addicted to the computer most recent fashion. These fanatics will always try to get the newest computer technology by one way or another. Usually, they are advance user of computers that always try to modify their computers to the fullest, by overclocking technique, hardware modification, etc.

Since Yogyakarta is filled with many people (mostly students) from other region, which have many characteristic of lifestyle, surely it changes the main characteristic of the local people. The level of consumption of this city is increasing since there are many people (mostly from big city) to live based on their previous lifestyle and habit, which drive Yogyakarta as one of a "*big*" cities in Indonesia. Because of that reason, it has been clear that Yogyakarta becomes a potential market for any computer endorser, manufacturer, even supplier to flourish their business and earns much profit. The computer's customers, purchase their PC with various motives. Some of them even seem unaware to the brand of the computer's product that they want to buy. It still becomes a deep enigma for many marketers about the factors that may affect the customer's loyalty. Many market practitioners and observer curious on the brand's effectiveness toward Yogyakarta a market.

Yet, there is so little research trying to investigate this particular market. Thus, the writer decided to conduct a research about entitled **"The Analysis of Brand Equity to Customer Loyalty of Computer Microchip Processor" A Case Study of AMD and Intel.**

The reason of why the writer chooses computer microchip processors product as the focus are because:

1. Computer widespread becomes primary need for common consumer.
2. The first thing that customer asks about computer is its processors (Intel, AMD, etc).

3. The Microchip Processors computer's brands are assumed to have strong association with the level of prestigious, quality, and demographic segmentation.
4. Microchip Processor is computer's core component that determines the substantial capability of computer and modification level that a computer may have.

1.2. Problem Identification and Formulation

Based on the literature review from the main journal related to the topic selected in this critical review and also from the supporting journal, there are following problems which are important to be deeply investigated as the scope of the research and will become the hypothesis:

1. Will these five attributes of brand equity (identification, trustworthiness, image, value, and performance) have a significant effect on the customer loyalty?
2. What is the dominant factor of brand equity attributes that influences most to customer loyalty?

1.3. Problem Limitation

In order to restrict the scope and size of proposed, the limitations of research are stated as follows:

1. The research is going to be conducted in Yogyakarta.

2. The respondents are the people in Yogyakarta that are intending to *repurchase* computers.
3. Microchip processor brands that are going to be used as objects of the study are Intel and AMD (Advance Micro Device).

1.4. Research Objectives

1. To examine the relationship between brand equity (identification, trustworthiness, image, value, and performance) to customer loyalty.
2. To find out the dominant factor of brand equity attributes that influence most to customer loyalty.

1.5. Research Contribution

1.5.1. Theoretical Contribution

The study will contribute a valuable literature that expands the existing study of brand into a new different level. Microchip processors' brand equity categorized as specific product has rarely been discussed for its empirical evidence. Meanwhile, microchip processor is one of the products that has a very fast evolvement and pulled very much interest from many Information technology customers. A literature that highlights the equity of a processor's brand shall endow the enrichment of marketing of academician's knowledge with a new valuable perspective.

1.5.2. Practical Contribution

In this computerized era, PC industry holds a very significant role in national's economic growth. PC rapidly penetrates both business and household market and yields a very tremendous success. Microchip processors are one of the most vital components that are integrated within PC's motherboard. In fact, Microchip processors determine overall quality that a PC has.

However, a dominance of certain product inside the microchip processor's market highlights a strong guess about the brand power influences even over a quality. These assertions will be empirically proven by the results of this research. This research will be of the strong references and decision making supporter for marketer and business practitioners in computer's microchip processors industry.

1.6. Definition of Terms

1. Brand

   Name, term, sign, symbol, or designs or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitor's (Kotler, 1996).

2. Brand Equity

   The value of the brand, based on the extent to which it has high brand loyalty, name awareness, perceived quality, strong brand associations and

other assets such as patents, trademarks and channel relationship (Keller, 1998).

3. Customer

   A customer is someone who makes use of or receives the products or services of an individual or organization.

4. Customer Loyalty

   Customer loyalty is a function of perceived product superiority, personal fortitude, social bonding, and their synergistic effects (Oliver, 1999).

5. Attachment/Identification

   Attachment is the customers' process of identifying some brands, and developing sentimental attachment with those brands (Lassar et al, 1995).

6. Performance

   Performance is a consumer's judgment about a brand's fault-free and long lasting physical operation and flawlessness in the product's physical construction (Lassar et al, 1995).

7. Image

   Social Image is the consumer's perception of the esteem in which the consumer's social group holds the brand (Lassar et al, 1995).

8. Trustworthiness

   Trustworthiness is the confidence a consumer places in the firm, and the firm's communications, and as to whether the firm's actions would be in the consumer's interest (Lassar et al, 1995).

9. Value

Value is the perceived brand utility relative to its costs, assessed by the consumer and based on simultaneous of what is received and what is give up to receive it (Lassar et al, 1995).

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1. Theoretical Review

Marketers engaged in branding seeking to develop or align the expectations behind the brand experience, creating the impression of a brand associated with a product or service that has certain qualities or characteristics that make it special or unique. A brand image may be developed by attributing a "personality" to or associating an "image" with a product or service, whereby the personality or image is "branded" into the consciousness of consumers. A brand is therefore one of the most valuable elements in an advertising theme.

Most products have some kind of brand identity. In non-commercial contexts, the marketing of entities which supply ideas or promises rather than product and services may also be known as "branding". A brand which is widely known in the marketplace acquires brand recognition. When brand recognition builds up to a point where a brand enjoys a critical mass of positive sentiment in the marketplace, it is said to have achieved brand franchise. One goal in brand recognition is the identification of a brand without the name of the company present. For example, **Intel** has been successful at branding with their particular script font (Intel Inside "signature" logo).

A brand can be defined as all names, terms, signs, symbols, or designs or combination of them, which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitor's (Kotler, 1996). Brands are increasingly considered as primary assets in many businesses. The reality is that the most valuable assets that many firms have may not be *tangible* assets, such as plants, equipment and real estate but *intangible* ones such as management skills (marketing, financial expertise) and most importantly, the brand itself. This is a starting point where a brand has an equity that needs to be handled carefully.

Brand equity measures the total value of the brand to the brand owner, and reflects the extent of brand franchise. The term brand name is often used interchangeably with "brand", although it is more correctly used to specifically denote written or spoken linguistic elements of a brand. In this context a "brand name" constitutes a type of trademark, if the brand name exclusively identifies the brand owner as the commercial source of products or services. A brand owner may seek to protect proprietary rights in relation to a brand name through trademark registration.

Brand equity is the value built-up in a brand. It is measured based on how much a customer perception to the brand. The value of a company's brand equity can be calculated by comparing the expected future revenue from the branded product with the expected future revenue from an equivalent non-branded product. It can be positive or negative. Positive brand equity is created by effective promotion and consistently meeting or exceeding

customer thoughts. Negative brand equity is usually the result of bad management.

Furthermore, brand equity is the willingness for someone to continue to purchase your brand or not. Thus, the measure of brand equity strongly relates to loyalty and measures segments on continuum from entrenched users of the brand to convertible users (Market Facts). There are several definitions and concepts in general about brand equity. Brand equity defines a set of brand assets and liabilities linked to a brand, its name and symbol, which add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers (Aaker, 1991). The major assets can be classified into five categories: brand loyalty, name awareness, perceived quality, brand association, and other proprietary brand assets such as patents, trademarks, and channel relationships (Aaker, 1991).

Brand equity is also the differential effect that brand knowledge has on consumer response to the marketing of that brand (Keller, 1998). Keller argues that a brand possesses positive customer-based brand equity when customers react more favorably to a (brand-identified) product and the way that it is markets as compared to when it is not. Brands can also possess negative customer-based brand equity, expressed when consumers react less favorably to the marketing activities associated with a brand, as compared to an unnamed or fictitious named version of the product. Keller further states that one of the characteristics of brands possessing strong brand equity is stronger brand loyalty. This position appears consistent with that of Aaker who argued

that brand loyalty could be consider both a dimension and an outcome of brand equity.

The loyalty business model is a business model used in strategic management in which company resources are employed so as to increase the loyalty of customers and other stakeholders in the expectation that corporate objectives will be met or surpassed. A typical example of this type of model is: quality of product or service leads to customer satisfaction, which leads to customer loyalty, which leads to profitability.

According to Lassar et al (1995), there are five important considerations to define brand equity. First, brand equity refers to consumer perceptions rather than any objective indicators. Second, brand equity refers to a global value associated with a brand. Third, the global value associated with the brand stems from the brand name and not only from physical aspects of the brand. Fourth, brand equity is not absolute but relative competition. Fifth, brand equity positively influences financial performance.

Keller (1998) acknowledges that brand loyalty has historically often been simplistically measured behaviorally simply via *repeat purchase* behaviors. However, he also acknowledges that customer loyalty can be viewed more broadly than reflected by simple purchase behaviors. Baldinger and Rubinson (1996) suggest that the use of loyalty definitions that include both attitudinal and behavioral components will be superior in terms of their predictive ability to conceptualizations of loyalty that are purely behaviorally based. Chaudhuri and Holbrook (2001) recently proposed a model of brand

loyalty that suggests that purchase loyalty tends to lead to greater market share, while attitudinal loyalty leads to higher relative brand pricing. Morgan (2000) similarly suggests that the term "loyal" can be interpret in different ways, ranging from affective loyalty ("what I feel") to behavioral loyalty ("what I do"). Narayandas (1998), and White and Schneider (2000) propose laddering models that appear consistent with this emerging orientation. Consequently, they operational customer loyalty in their research as a function of both behavioral (i.e. purchase intentions) and attitudinal loyalty.

2.1.1. Previous Research on Brand Equity and Customer Loyalty

Taylor et al (2004) assess the relative importance of many of the known antecedents to customer loyalty, including brand equity. The study contributes to existing knowledge by simultaneously assessing the relative influence of satisfaction, value, resistance to change, brand affect, trust, and brand equity on perceptions of customer loyalty using structural equation analysis. The purposes of this research are to find whether brand equity is positively related to behavioral form of customer loyalty and attitudinal form of customer loyalty.

Sinuhaji (2005) studied the analysis of customer based brand equity toward consumer's purchase intention of fast food restaurants in Yogyakarta. The researches are the comparison of the two fast food restaurant which are McDonald and Kentucky Fried Chicken (KFC). The objective of the research is to examine the relationship between brand

equity and consumers purchase intention, and also to find out the dominant factor of brand equity that influences consumers purchase intention. Baldinger and Rubinson (1996) are studying reports on the results of a major R&D initiative to redefine brand loyalty and verify its importance. They believe that the importance of brand loyalty can be better understood by extending the typical definitions and measurement approaches of loyalty. They also believe that the importance of brand loyalty can be better understood by extending the typical definitions and measurement approaches of loyalty. Baldinger and Rubinson describe the concepts and measurement approaches of a technique called Brand Builder that was developed by The NPD Group, Inc. in 1992. Results of a longitudinal study that validate this method will be described. They will use these results to argue against the Ehrenberg contention that marketers should exclusively focus on building penetration.

Lassar et al (1995) make a research in order to develop an instrument to measure customer based brand equity, the research itself compare three brands in two categories which are Television (Sony, RCA, and Goldstar) and Watches (Seiko, Bullova, and Timex). Customer based brand equity has been defined as the differential effects of brand knowledge on consumer response to the marketing of the brand. After measuring the brand equity, dimensions that need more promotional support can be identified. Finally, distribution of high social image product

(upscale stores) is different from the distribution of low image product (discount stores).

Myers (2003) examines the effect of intangible and tangible attributes on brand equity as well as its relationship to consumer preferences. There is a strong relation between brand equity and each of the preference measures utilized in the study. It might have been expected that brand name may have greater importance than overall preference for this brands, given the less abstract nature of this product category. Donald (1993) examines the ingredient branding efforts of Intel, the leading supplier of microchip processor for personal computers. It's "Intel Inside" promotional strategy includes network television commercials and advertisements in a variety of general business publications which communicate that Intel is the "computer inside" most personal computers.

Chaudhuri and Holbrook (2001) examine two aspects of brand loyalty; purchase loyalty and attitudinal loyalty, as linking variables in the chain of effects from brand trust and brand affect to brand performance (market share and relative price). The model includes product-level, category-related controls (hedonic value and utilitarian value) and brand-level controls (brand differentiation and share of voice). Valarie (1988) uses findings from past research and insights from an exploratory investigation combined in an adaptation of a model first proposed by Dodds and Monroe (1985), which defines and relates price, perceived

quality, and perceived value. The exploratory investigation of quality and value is conducted in the beverage product category.

Sirdeshmukh et al (2002) develop a framework for understanding the behaviors and practices of service providers that build or deplete consumer trust and the mechanisms that convert consumer trust into value and loyalty in relational exchanges. The proposed framework (1) uses a multidimensional conceptualization for the trustworthiness construct; (2) incorporates two distinct facets of consumer trust, namely, frontline employees and management policies and practices; and (3) specifies value as a key mediator of the trust-loyalty relationship. Chaudhuri (1999) examines a casual modeling approach is used to analyze the direct and indirect influences of brand attitudes, habit and brand loyalty on brand equity outcomes such as market share, shelf facings and price.

Mittal and Kamakura (2001) develop the model which is based on the premise that ratings observed in a typical customer satisfaction survey are error-prone measures of the customer's true satisfaction, and they may vary systematically on the basis of consumer characteristics by applying the model to a large-scale study of 100,040 automotive customers. Mittal and Lassar (1998) selected two services, health care and car repair. The intent was to select a service with high interpersonal contact opportunity between the customer and the service providers (health care), and another with relatively low opportunity (car repair). Since functional quality of the Gronroos' (1990) categories and, likewise, responsiveness and empathy

dimensions of SERVQUAL (Service Quality) would have relevance mostly for services that offer opportunities for interpersonal interaction, it was important to obtain variation on this attribute of the service organization (Mittal and Lassar, 1996).

Srinivasan et al (2005) are propose a new approach for measuring, analyzing, and predicting a brand's equity in a product market. Brand equity is defined as the incremental contribution ($) per year obtained by the brand in comparison to the underlying product (or service) with no brand-building efforts. Aaker (1996) is examines 10 sets of measures grouped (managers with a framework for measuring the strength of a brand are presented) categories: loyalty, perceived quality, associations, awareness, and market behavior.

Prasad and Chekitan (2000) examine what constitutes brand equity in the hotel industry and demonstrate a method for how that brand equity can be measured. The objective here is to offer a diagnostic and decision-making tool to CEOs and top managers of hotel companies that will help them maximize the value of their brands. Although a real-life example of brand-equity measurement was not available, Prasad and Chekitan have developed a hypothetical but realistic demonstration of how the brand-equity index is developed and can be used to assess a brand's strength over time and in relation to its competitive set. Woo Gon Kim and Hong-Bumm Kim (2004) made a research on seven restaurants and it shows that a quick service restaurant should aim most of its advertising efforts at enhancing

customer awareness so that customers at least consider that brand in the evoked set of choice alternatives.

Cathy et al (1995) state that brand equity can be discussed from the perspective of the investor, the manufacturer, the retailer, or the consumer. Clearly, brand names add value to each of these groups. Investors have a financial motivation for extracting the value of a brand name from the value of a firm's other assets. Brand equity provides a strong platform for introducing new products and insulates the brand against competitive attacks. The purpose of the study is twofold: 1) to measure the equity of brands which vary along selected criteria; and 2) to investigate the impact of brand equity on brand preferences and purchase intentions. The researches are comparison analysis about Hotel and Cleanser. The study examines the equity of both products and services, since the existing work on brand equity has focused almost exclusively on products and has failed to adequately considered service industries (Smith 1991).

2.1.2. Previous Recurring Findings on Brand Equity and Customer Loyalty

Taylor et al (2004) create a single endogenous loyalty variable using both attitudinal and behavioral measures. These results suggest that all of the identified exogenous variables contribute to customer loyalty; however, again brand equity and trust appear the major influences. They conclude that: All of the identified antecedents to loyalty identified in previous studies are supported in this study; however; the antecedents

between behavioral loyalties versus attitudinal loyalty may vary across research settings; and brand equity and trust appear the two most influential influences on both behavioral and attitudinal loyalty. Baldinger and Rubinson (1996) conclude that: There were much lower levels of year-to-year retention of high loyal than they were anticipated; ingoing attitudes toward the brand had a dramatic effect on a brand's ability to either convert low loyal to high, or to retain high loyal over time. In addition, the convergence of attitudes and behavior has predictive characteristics, since approximately two-thirds of brands increased their market share from year to year either when their ingoing mix of attitudinal to behavioral loyalty was positive, or decreased in share when their attitudinal profile was less loyal than their behavioral profile.

Sinuhaji (2005) found that mostly half of the respondents (70,47%) prefer McDonald. About 50 respondents (50,33%) show their preference KFC, and about 30 Respondents (30,20%) of the rest of the respondents show their choice to other restaurants. The results show that brand equity has significant relationship toward consumer's purchase intention both in McDonald and Kentucky Fried Chicken (KFC). The most dominant factor of brand equity dimensions on consumer's purchase intention is differs. At McDonald, the most dominant factor to influence consumer's purchase intention is brand association followed by perceived quality, brand awareness and brand loyalty. Meanwhile, at Kentucky Fried Chicken (KFC) perceived quality appeared to have the most significant impact in

persuade consumer-purchasing intention followed by brand association, brand loyalty and brand awareness. Consumers are less considering about brand awareness and brand loyalty variables when they intent to purchase product of fast food restaurants. Both in McDonald and KFC brand awareness and brand loyalty are in the lowest rank.

From Lassar et al (1995) researches, the results show that promotion is critical in developing equity. Customer based brand equity has been defined as the differential effects of brand knowledge on consumer response to the marketing of the brand. Promotion can be used to develop performance expectation (e.g. Lexus Cars), increase trustworthiness (e.g. FedEx), increase social image (e.g. Michelob), increase commitment (e.g. Saturn), and increase value (e.g. Honda).

Myers (2003) found as expected that brand name may have greater importance than overall preference for these brands, given the less abstract nature of this product category. This finding should be viewed with caution, however, since the products used in the study were low involvement. Low involvement products, such as consumer products, may be viewed differently from high involvement products. Low involvement products such as consumer products are advertised and promoted frequently and thus consumers are likely to have formed a more objective view of the nature of the attributes, even those that are more abstract. Donald (1993) found that with research on consumption behavior, direct consumer promotion, collaboration with the manufacturer in promotion,

expansion of the manufacturer's usage base, collaboration with the manufacturers in non-promotion areas, and continuation of direct consumer promotion, Intel have succeed in developing ingredient branding effort.

Chaudhuri and Holbrook (2001) indicate that when the product- and brand-level variables are controlled for, brand trust and brand affect combine to determine purchase loyalty and attitudinal loyalty. Purchase loyalty, in turn, leads to greater market share, and attitudinal loyalty leads to a higher relative price for the brand. Valarie (1988) found that the model suggests a number of strategies that can be implemented to understand and capitalize on brand quality and value: 1. closing the gap between objective and perceived quality, which requires the firm to view quality the way the consumer does, 2. identifying the key intrinsic and extrinsic cues consumers use to signal quality, 3. acknowledging the dynamic nature of quality perceptions, 4. understanding how consumers encode monetary and non-monetary prices, and 5. recognizing multiple ways to add value.

Sirdeshmukh et al (2002) found that the results support a tripartite view of trustworthiness evaluations along operational competence, operational benevolence, and problem-solving orientation dimensions. Moreover, the paper finds evidence of contingent asymmetric relationships between trustworthiness dimensions and consumer trust. Chaudhuri (1999) indicates that brand attitudes are directly and indirectly related to market

share and shelf facings but only indirectly related to price, with the indirect path occurring through brand loyalty. The results are shown to replicate adequately when using different samples of shoppers and products. The implications of the study are discussed in terms of their significance for managers.

Mittal and Kamakura (2001) found that the result show that consumers with different characteristics have different thresholds such that, at the same level of rated satisfaction repurchase rates are systematically different among different customer groups. Mittal and Lassar (1998) found that satisfaction is driven more by "technical quality" than by "functional quality." However, once satisfaction is achieved, loyalty is driven more by functional than by technical quality. Srinivasanet et al (2005) found that the survey-based results from applying the method to the digital cellular phone market in Korea show that the proposed approach has good face validity and convergent validity, with brand awareness playing the largest role, followed by non attribute preference.

Aaker (1996) examines 10 sets of measures grouped (managers with a framework for measuring the strength of a brand are presented) categories: loyalty, perceived quality, associations, awareness, and market behavior. Employing these measures can be difficult and their results must be used carefully. However, the research has the capacity to provide managers with a set of important and extremely useful measurement tools. Prasad and Chekitan (2000) present hypothetical findings from their

surveys to demonstrate how the brand equity issue could be addressed and better understood from the perspective of customers' perception, attitude, use, and satisfaction. By measuring brand equity in this way, corporate managers can compare the strength of brands in a competitive set and track a hotel brand's equity over time.

Woo Gon Kim and Hong-Bumm Kim (2004), found that the results of their study imply that QSR (Quick Service Restaurant) chains should strongly consider brand awareness when attempting to establish brand equity from the customers' viewpoint. Heavy and successive promotional activities through the mass media seem to vastly prevail in QSR markets, although recent changes in the communication environment have led to more creative ways to approach customers. Besides TV commercials or magazine advertising, support activities and charity involvement in social, cultural, sports, or other kinds of public events can improve a firm's brand awareness. Another important conclusion that may be drawn from this study lies in the fact that the perceived quality of a specific QSR brand is found to significantly affect its performance.

Cathy et al (1995) found that the measurement and management of brand equity have become top priority marketing issues in recent years, as evidenced by the growing literature on the subject. Firms need empirical evidence of the consequences of brand equity. The present study demonstrated that brand equity increases both consumer preferences and purchase intentions. They hope that future studies should examine more

closely the antecedents of brand equity, particularly the role that advertising plays in adding value to the brand and in helping "great brands live forever".

2.2. Theoretical Framework

The theoretical framework that is used is modified from the brand equity dimension based on Lassar et al (1995) which are identification/attachment, trustworthiness, image, values, and performance where all of it's attributes have relationship with customer loyalty.

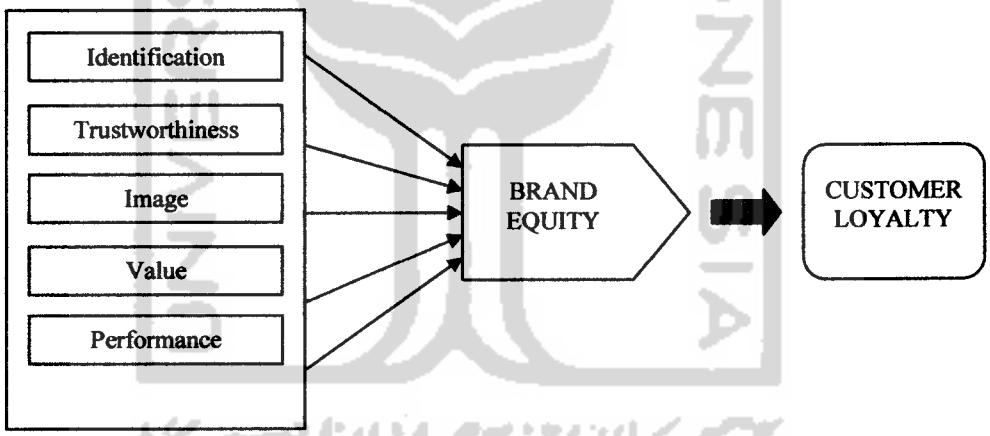


Figure 2.1
The Relationship between Brand Equity and Customer Loyalty

2.3. Hypothesis Formulation

Statement about concepts that may be judged true or false if it refers to observable phenomena, which is formulated for empirical testing, can be called as

hypothesis. In a simplest form, a hypothesis is a guess. Hypothesis is an unproven proposition or supposition that tentatively explains certain facts or phenomena a probable answer to a research question (Zikmund 1991 p. 99).

From the discussions of key variables in the previous section, this study will test the following hypothesis:

H1: There are significant relationships between brand equity (attachment/identification, trustworthiness, image, value, and performance) and customer loyalty

H2: Value is the dominant factor of brand equity attributes that influence most to customer loyalty

There are reasons why the writer uses these hypotheses, which are:

1. The microchip processor market is related with brand equity attributes (identification, trustworthiness, image, value, and performance). Before a customer tends to repurchase a brand or tend to become loyal to a brand computer, usually he learns the product from the very beginning he buys his computer, furthermore customer will seek information from other sources about the brand such as friends, magazines, or from internet. If a brand bought by the customer meets his expectation (value and performance), he will become loyal to the brand and it will also increase other brand equity attributes of the brand (identification, trustworthiness, and image).
2. Since most of economic backgrounds in Yogyakarta are from low to middle class economic, I guest that value is the most dominant factor of brand equity attribute that influences most to customer loyalty.

CHAPTER 3

RESEARCH METHOD

3.1. Research Method

This research study can be classified as an associative research, specifically as a causal study. It establishes a definitive cause and analyses its effect (Sekaran, 2000). The method used in this research is survey method by using questionnaires to subject of the research.

3.2. Research Subject

3.2.1 Population

Zikmund (2000) defined population as any complete group of entities sharing some common set of characteristics. Since the research is studying specific product, which is computer's microchip processor, thus the targeted population for this research is obviously computer's consumers. I will try to find the best momentum to get response from these specific customers, which is when there are computer exhibitions that are often held in Yogyakarta.

3.2.2. Sample and Sampling Method

Sekaran (2000) defined sample as a subset of the population. This research will take random sample to be computed. Random sample is believed to give the most convenient way on collecting the sample needed to optimize the research result.

This research employs non probability sampling method which mean the probability of any particular member of the population being chosen is unknown (Zikmund, 1991 p.462). The type of non probability sampling method that is considered suitable with this research is convenience (accidental) sampling method. Convenience sampling method refers to the sampling procedure of obtaining the people or units that are most conveniently available.

According to Hair et al in his book Multivariate data Analysis stated that, in order to get valid result, the minimum samples are 50 respondents. Yet the most ideal one is estimated 100 -150 samples. Therefore, for the purposes of this research, 100 samples are going to be taking as the sample respondents.

3.3. Research Setting

3.3.1. Place

This research is conducted in Yogyakarta. In more specifics the questionnaire will be spread in some places where computer exhibition is usually held in Yogyakarta, and also to some computer store in Yogyakarta. Microprocessor brand that is going to be used as the object of this study is AMD and Intel

3.3.2. Time

This research is conducted from 15 April 2007 until it gets 100 respondents which meet the requirements.

3.4. Research Instrument

The data obtained in this research are primary data. In order to get primary data questionnaire instruments are need to be distributed to the targeted samples of population. The distributed questionnaires translated into *Bahasa Indonesia* to ease target research in understanding the question within the instrument. The survey is taken in order to derive consumers' opinion toward brand equity attributes which are attachment/identification, trustworthiness, image, value, and performance to customer loyalty.

In this study, questionnaire is the only tool used to obtain the primary data from the respondents; therefore, the effectiveness of the questionnaire as a measurement tool is the most important factor in determining the quality of the research result. This is because the result of this research is fully dependent on the quality of the data obtained.

3.4.1. Validity

Basically, the function of validity test is to measure and analyze whether each element of instrument really explains the indicator researched or not. Validity is the measurement that refers to the level of validity of measurement. In the other words, a high measurement tool is identical to the high level of validity. A measurement tool is claimed valid, if it is able to measure what it wants to. The high and low level of validity of measurement is that tool respectively shows how far the collected data

are not strayed from the path of description in the direction of the tested variables.

The formula (Sekaran, 2000) is as follows:

$$r_{xy} = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{\left[N\sum x^2 - (\sum x)^2\right]\left[N\sum y^2 - (\sum y)^2\right]}}$$

Where:

r : correlation coefficient between x variable and y variable

N : total sample

X : value of x variable

Y : value of y variable

If $r_{test} > r_{table}$ means the measurement tool is valid and the opposite.

For 100 of the total respondents and 5% of significance level, then the critical value for the validity coefficient is about r = 0.339 (Sekaran, 2000). If the validity coefficient of one item is greater than critical validity coefficient (0.339), then that item can be considered as valid, but if the validity coefficient of one item is less than the critical validity coefficient (0.339), then that item is invalid or failed.

Before the questioners are distributed in computer exhibition, the writer had already taken samples around 30 respondents from random computer store in Yogyakarta that will be used to test the reliability and validity. The data of the survey is evaluated by using the software tool of **SPSS**, in which it can analyse the reliability and validity of all input variables. The following are the validity test for all data, including five

attributes of brand equity, and the customer loyalty items.

Table 3.1. The Validity Test

Variable	Questions Items	r	Status
Identification (X1)	X1.1	0.932	valid
	X1.2	0.849	valid
	X1.3	0.832	valid
Trustworthiness (X2)	X2.1	0.858	valid
	X2.2	0.812	valid
	X2.3	0.759	valid
Image (X3)	X3.1	0.872	valid
	X3.2	0.836	valid
	X3.3	0.691	valid
Value (X4)	X4.1	0.792	valid
	X4.2	0.851	valid
	X4.3	0.792	valid
Performance (X5)	X5.1	0.768	valid
	X5.2	0.829	valid
	X5.3	0.781	valid
	X5.4	0.751	valid
Customer Loyalty (Y)	Y1.1	0.775	valid
	Y1.2	0.819	valid
	Y1.3	0.802	valid
	Y1.4	0.682	valid
	Y1.5	0.879	valid
	Y1.6	0.870	valid
	Y1.7	0.782	valid
	Y1.8	0.908	valid
	Y1.9	0.885	valid
	Y1.10	0.731	valid

Source: the SPSS calculation (See Appendices)

The validity test of each data input is acquired by applying the correlation matrix. The value of corrected item total correlation (*r*) shows the value of the significance of the correlation of the data. The data are considered valid when *r*-value shows 0.3 or greater. Otherwise, the item will be deleted or discarded when the *r*-value is less than 0.3, and it is

considered not valid. Only valid data are processed for further computation.

3.4.2. Reliability

Reliability test is designed to find out the consistency of measurement tool and it could give the result which is relatively consistent if there is a re-measurement in the same subject. Reliability refers to the reliable and appropriate measurement tool to be used to collect the data. A reliable and appropriate measurement tool tends to direct respondents to answer the questions on the way of path expected. A reliable measurement tool will provide reliable result also, and if the data is really relevant to the reality condition, the result of any measurements conducted in the next period will always be the same.

Reliability test is done with SPSS by putting all questions in SPSS to be analyzed. It uses alpha coefficient from Cronbach to find the value of alpha Cronbach for each type of questionnaire that show its reliability. If the result of alpha Cronbach (α) ≥ 0.6, thus the measurement tool (questionnaire) of the research is claimed reliable to use.

The *Alpha Cronbach* formula (Sekaran, 2000) is as follows:

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma_b^2}{\sigma_t^2} \right)$$

Where :

r_{11} : instrument reliability

k : total item of questionnaire

σ_t^2 : total variance

$\sum\sigma_b^2$: the sum of total variance

The *alpha* scale is used to test the reliability of the data. The reliability is showed by the value of *alpha*, in which the value of 0.6 above is considered reliable. When the data is reliable, it can be used for further analysis on its impact on customer loyalty by using the *multiple regressions*.

Table 3.2. The Reliability Test

Variable	Coefficient Alpha	Standardized Item Alpha	Reliability
Identification (X1)	0.839	0.6	Reliable
Trustworthiness (X2)	0.734	0.6	Reliable
Image (X3)	0.721	0.6	Reliable
Value (X4)	0.728	0.6	Reliable
Performance (X5)	0.785	0.6	Reliable
Customer Loyalty (Y)	0.940	0.6	Reliable

Source: the SPSS calculation (See Appendices)

Based on the table shown above, the entire variable have *Cronbach Alpha* value greater than 0.6. Therefore all the variables considered reliable.

3.5. Research Variables

3.5.1. Measurement of Brand Equity

The measurement of brand equity attributes i.e. attachment/identification, trustworthiness, image, value, and performance used in this research are adapted from prior literature to adapt the current subject. Questions were adapted from Lasser et al (1995) which measured anchored by a six-point, strongly disagree to a strongly agree continuum

with demonstrated psychometric properties. This research employed questions with a six-point Likert scale anchored from 1 (strongly disagree) to 6 (strongly agree).

3.5.2. Measurement of Customer Loyalty

The measurement about those variables is adapting questions from Chaudhuri and Holbrook, 2001; Oliver, 1997; Pritchard et al., 1999; Sirdeshmukh et al. (2002). This research employed questions with a six-point Likert scale anchored from 1 (strongly disagree) to 6 (strongly agree).

3.6. Research Procedures

The research procedures were:

1. Passing out the questioners

   Before filling out the questioners, the respondents will be given a clear direction how to fill.

2. Validity and reliability test

   A validity and reliability test will be done on the data obtained from 30 respondents.

3. Data analysis

   The data was analyzed by using set of regression test.

4. Data interpretation

   The data was transformed into sentences to be more understandable.

3.7. Technique of Data Analysis

3.7.1. Qualitative analysis

This analysis is based on the characteristics information of respondents and questionnaire result. This information will be important to know the proportion, composition, and ratio of the respondents in terms of age, gender, income, and occupation.

3.7.2. Quantitative analysis

The quantitative data analysis method that will be used in testing those two hypothesizes in this research is multiple regression model. To find out whether there is a significant relationship over one dependent variable to the independent variable, a multiple model should be employed (Sekaran, 2000). By using this model as well, the beta coefficients determine the weight of significances of each sub dependent variable of role mode over the independent variables.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Where:

Y	: Customer Loyalty
A	: Constant
b_1 b_2 b_3 b_4 b_5	: Regression Coefficient
X_1	: Attachment/Identification
X_2	: Trustworthiness
X_3	: Image
X_4	: Value

X_5 : Performance

e : Error terms

The testing of effect significance from each dependent variable is using the T-test and F-test statistic (Sekaran, 2000) and if the p-value from statistic $Pvalue < \alpha$, then the effect of independent variable to be tested is obviously asserted as significant.

From the explanation from one expert, besides using multiple regressions therefore should using simple linier regression for each independent variable to analyze the partial effect of brand equity to customer loyalty (T-Test).

Simple linear regression for each variable:

$Y = a + b_1X_1$

$Y = a + b_2X_2$

$Y = a + b_3X_3$

$Y = a + b_4X_4$

$Y = a + b_5X_5$

CHAPTER 4

RESEARCH FINDINGS. DISCUSSION, AND IMPLICATIONS

4.1. Research Description

This research was conducted in the Jogja Expo Center (JEC) in NiX (National IT eXpo) exhibition from April 28 until May 2007 in Yogyakarta. Processor brands that the researcher used as the object of study are Intel and AMD. This research tries to answer the questions as mentioned in the previous chapter. Firstly, it tries to investigate whether the five attributes of brand equity, namely performance, social image, value, trustworthiness, and attachment or identification have a relationship on the customer loyalty. Secondly, this study tries to examine the dominant factor of brand equity attributes that influence customer loyalty.

This study used operational variables which are Customer Loyalty as the Dependent Variable (Y) and brand equity attributes (Attachment/Identification, Trustworthiness, Image, Value, and Performance) as the Independent Variables (X).

Each of brand equity attributes consists of questions items. Attachment/Identification, Trustworthiness, Image, and Value attributes each are consist of three (3) items of questions, and four (4) items questions for Performance.

The statement of dependent variables (Customer Loyalty) consists of ten (10) items questions. These ten items of questions were asked to discover the influence factors that customers might consider in the customer loyalty.

4.2. Research Findings

4.2.1. Respondents' Profile and Other Finding

The research was conducted in Jogja Expo Center (JEC) in NiX (National IT eXpo) exhibition from April 28 until May 2007 in Yogyakarta. The main respondents were the people in Yogyakarta. The respondents' profiles in this research are illustrated into five categories, which are based on the respondents' gender, age, income, occupation and respondent main purpose in using computer. The others questions are additional information about their opinion to processor market in Yogyakarta.

The respondents' demographic characteristics are treated as additional information which may be used to discover respondents profile in giving evaluation on the effect of brand equity of computer microchip processor toward customer loyalty. The following shows the table and diagram figures of the respondents' profile.

4.2.1.1. Respondents' Gender

In the Table 4.1 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which is based on the respondent's gender.

Table 4.1. The Respondents' Gender

Gender		
Cluster	Number of Respondents	Percentage
Male	77	77 %
Female	23	23 %
Total	100	100 %

Source: the primary data (See Appendices)

The survey finding shows that from the 100 respondents, the male respondents were 77 people or about 77 %, whereas the female respondents were 23 people or about 23 %. (See Table 4.1)

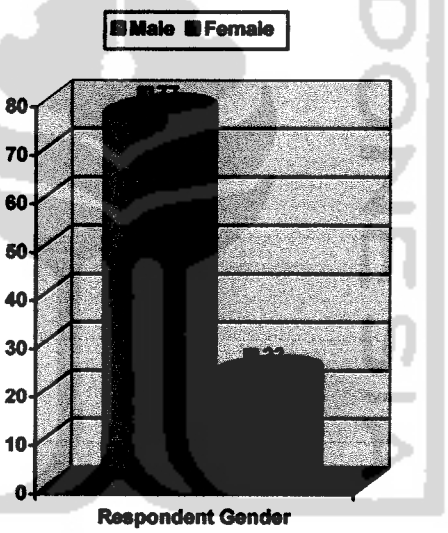


Figure 4.1.
Graphs of The Respondents' Gender

4.2.1.2. Respondents' Age

In the Table 4.2 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's age.

From the 100 respondents the ages between 21 to 25 years old dominantly take part in the survey (71%). Then, it is followed by the age below 20 years old (18%), 26-30 years old (10%), 31-35 years old (1%) and more than 35 years old (0%). It can be concluded that cluster 21-25 dominantly take part in survey since most of respondents are college student. (See Table 4.2)

Table 4.2. The Respondents' Age

Age		
Cluster	Number of Respondents	Percentage
< 20	18	18 %
21-25	71	71 %
26-30	10	10 %
31-35	1	1 %
> 35	0	0 %
Total	100	100%

Source: the primary data (See Appendices)

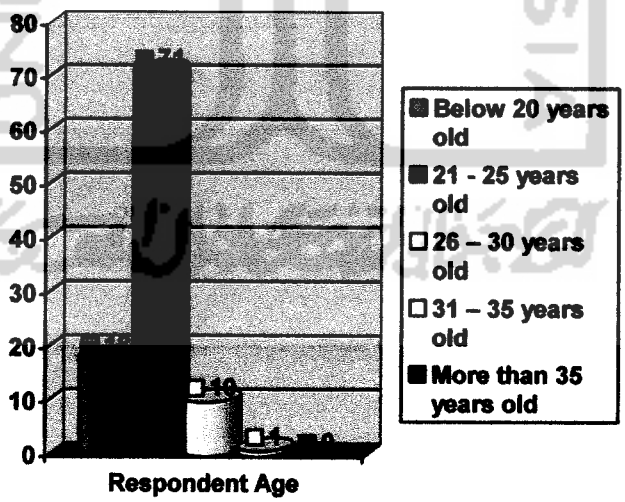


Figure 4.2.
Graphs of The Respondents' Age

4.2.1.3. Respondents' Income

In the Table 4.3 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's income.

Table 4.3. The Respondents' Income

Income		
Cluster	Number of Respondents	Percentage
Below Rp. 500.000	26	26 %
Rp. 500.001 - Rp. 1.000.000	54	54 %
Rp. 1.000.000 - Rp. 1.500.000	14	14 %
Rp. 1.500.000 - Rp. 2.000.000	3	3 %
More than Rp. 2.000.000	3	3 %
Total	100	100%

Source: the primary data (See Appendices)

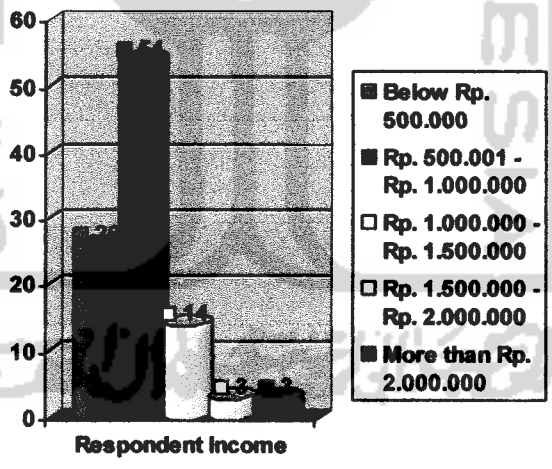


Figure 4.3.
Graphs of The Respondents' Income

The respondents were asked to provide their average monthly income. From the table 4.3 it is shows that 26 % of the respondents have the income Below 500.000 Rupiahs. About 54 respondents (54%) have the

income between 500.001 until 1.000.000 Rupiahs. This range dominantly takes part in the survey. The others, 14 respondents (14%) have the income between 1.000.000 until 1.500.000 Rupiahs about 3 respondents (3%) has the monthly income between 1.500.000 until 2.000.000 Rupiahs. Lastly around 3 respondents (3%) have monthly income more than 2.000.000 Rupiahs. (See Table 4.3)

4.2.1.4. Respondents' Occupation

In the Table 4.4 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's occupation.

Table 4.4. The Respondents' Occupation

Occupation		
Cluster	Number of Respondents	Percentage
Student	7	7 %
University Student	76	76 %
Official gvt. employee	1	1 %
Private employee	7	7 %
Other	9	9 %
Total	100	100%

Source: the primary data (See Appendices)

From the 100 respondents most of them are university student which dominantly take part in the survey (76%). Then, it is followed by other occupation (9%), student (7%), private employee (7%) and official government employee (1%). It can be concluded that university student dominantly take part in survey since most of respondents are college student. (See Table 4.4)

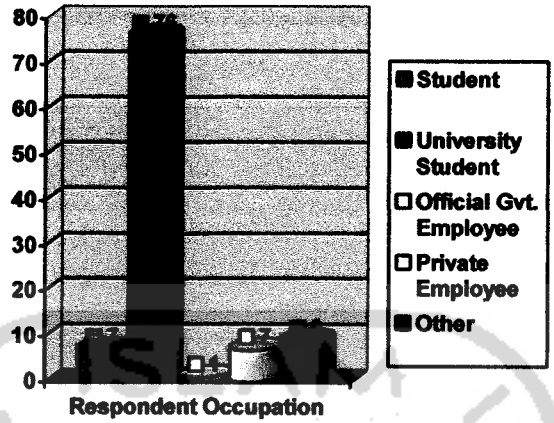


Figure 4.4.

Graphs of The Respondents' Occupation

4.2.1.5. Respondents' Main Purpose

In the Table 4.5 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's main purpose.

From the 100 respondents most of them are using computer for working school or university assignment which dominantly take part in the survey (50%). Then, it is followed for multimedia tool (20%), for business or work (15%), for hobby or competition (8%), for internet (4%) and for other (3%). It can be concluded that using computer for working school or university assignment dominantly take part in survey since most of respondents are college student. (See Table 4.5)

Table 4.5. The Respondents' Main Purpose

Main Purpose		
Cluster	Number of Respondents	Percentage
Working school/university assignment	50	50 %
Multimedia tool	20	20 %
Internet	4	4 %
Business/Work	15	15 %
Hobby/Competition (Overclocking)	8	8 %
Other	3	3 %
Total	100	100%

Source: the primary data (See Appendices)

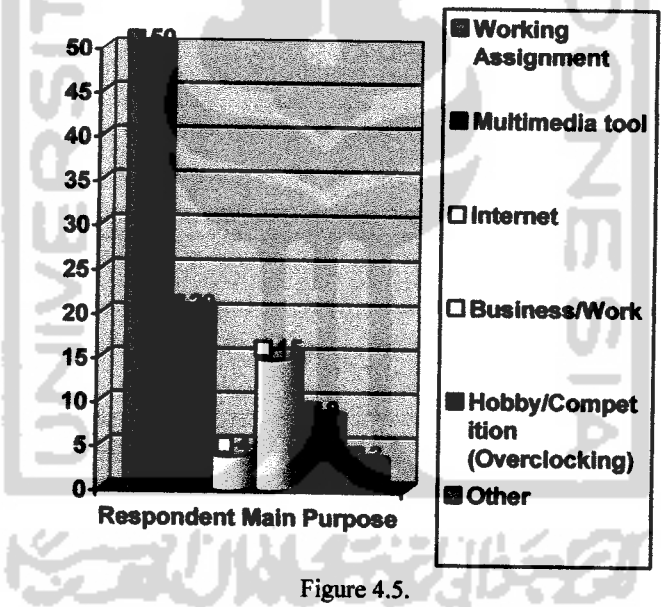


Figure 4.5.
Graphs of The Respondents' Main Purpose

4.2.1.6. Respondents' Verification

In the Table 4.6 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's verification.

The respondents are asked whether they have ever bought processor (computer). The survey finding shows, that all 100 respondents had ever buy processor (computer). This finding show the fact that processor (computer) is already well being accepted by the customer especially by college student in Yogyakarta. (See Table 4.6)

Table 4.6. Respondents' Verification

Verification		
Cluster	Number of Respondents	Percentage
Yes	100	100 %
No	0	0 %
Total	100	100%

Source: the primary data (See Appendices)

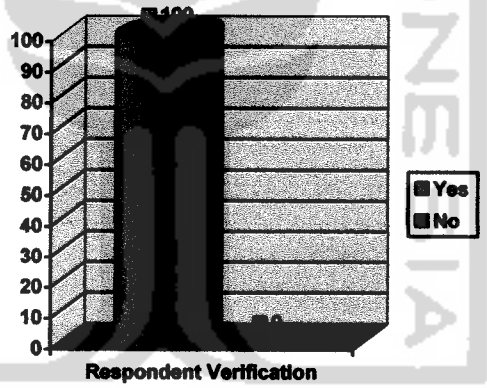


Figure 4.6.
Graphs of The Respondents' Verification

4.2.1.7. Respondents' Current Processor

In the Table 4.7 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's current processor.

The respondents are asked what processor brand that they are currently using. The survey finding shows, that 34% of respondents are currently using AMD processor and 66% of respondents are currently using Intel processor. This finding shows the fact that Intel processor is well being accepted by mostly customer especially in Yogyakarta. (See Table 4.7)

Table 4.7. Respondents' Current Processor

Current Processor		
Cluster	Number of Respondents	Percentage
AMD	34	34 %
Intel	66	66 %
Other	0	0 %
Total	100	100 %

Source: the primary data (See Appendices)

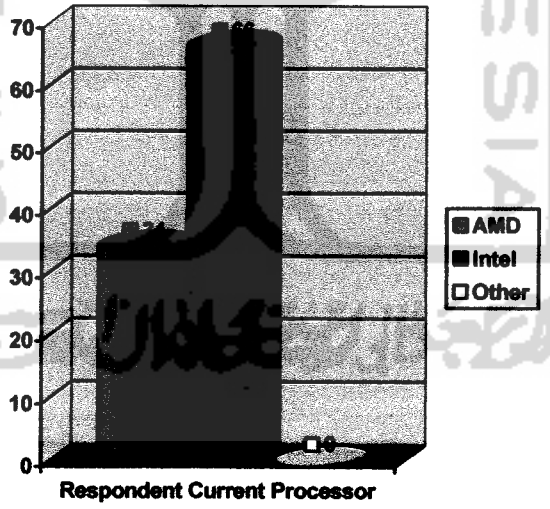


Figure 4.7.
Graphs of The Respondents' Current Processor

4.2.1.8. Respondents' Past Processor

In the Table 4.8 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's past processor.

Table 4.8. Respondents' Past Processor

Past Processor		
Cluster	Number of Respondents	Percentage
AMD	33	33 %
Intel	67	67 %
Other	0	0 %
Total	100	100%

Source: the primary data (See Appendices)

The respondents are asked what processor brand that they use before. The survey finding shows, that 33% of respondents are currently using AMD processor and 67% of respondents are currently using Intel processor. This finding shows the fact that in the past, Intel processor is also well being accepted by mostly customer especially in Yogyakarta. (See Table 4.8)

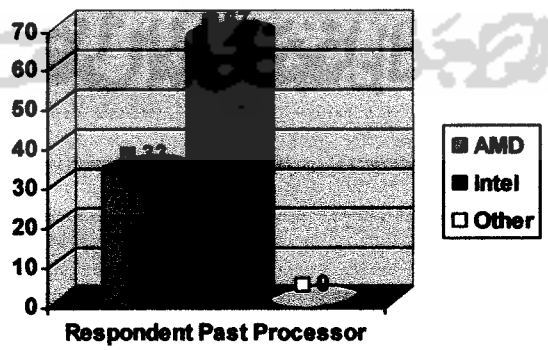


Figure 4.8.
Graphs of The Respondents' Past Processor

4.2.1.9. Respondents' Reason in Choosing Current Brand

In the Table 4.9 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's reason to choose their current processor.

Table 4.9. The Respondents' Reason

Reason		
Cluster	Number of Respondents	Percentage
Availability	7	7 %
Compability	14	14 %
Performance	60	60 %
Price	16	16 %
Guarantee/Warranty	3	3 %
Total	100	100%

Source: the primary data (See Appendices)

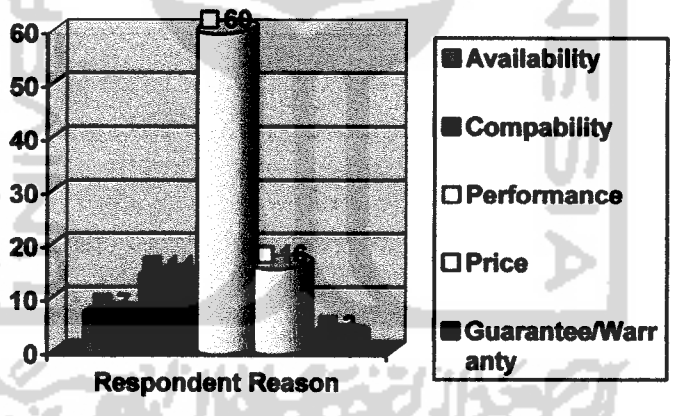


Figure 4.9.
Graphs of The Respondent's Reason

The respondents are asked what the reason in choosing their current processor brand is. The survey finding shows, that 60% of respondents choose performance, 16% of respondents choose price, 14% of respondents choose compability with other software or hardware, 7% of

respondents choose availability, and 3% of respondents choose guarantee or warranty as their main reason in choosing processor brand. This finding shows the fact that performance of processor is the main reason choosing processor brand by most customer especially in Yogyakarta. (See Table 4.9)

4.2.1.10. Respondents' Plan in Upgrade Processor Yearly

In the Table 4.10 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's plan in upgrading their processor yearly.

Table 4.10. Respondents' Past Processor

Plan in Upgrade		
Cluster	Number of Respondents	Percentage
Never	42	42 %
Once	39	39 %
More Than Once	19	19 %
Total	100	100%

Source: the primary data (See Appendices)

The respondents are asked how many times in a year they would like to upgrade their processor. The survey finding shows that 42% of respondents choose to never upgrade their processor in a year but it could be upgraded in more than a year, 39% of respondents choose once upgrade their processor in a year, and 19% of respondents choose more than once upgrade their processor in a year. This finding shows that most of customers in Yogyakarta never upgrade their processor in a year, but they

might upgrade their processor more than a year or when it's needed. (See Table 4.10)

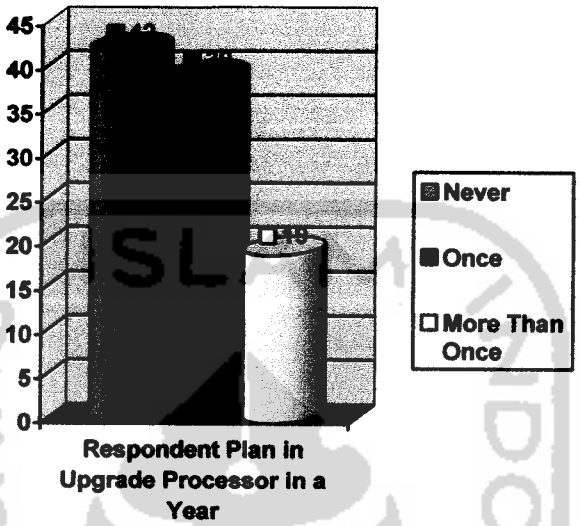


Figure 4.10.
Graphs of The Respondent's Plan in Upgrade Yearly

4.2.1.11. Respondents' Plan in Upgrade Processor This Year

In the Table 4.11 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's plan in upgrade their processor this year.

Table 4.11. Respondents' Plan in Upgrade Processor This Year

Plan to Upgrade This Year		
Cluster	Number of Respondents	Percentage
Yes	35	35 %
No	65	65 %
Total	100	100%

Source: the primary data (See Appendices)

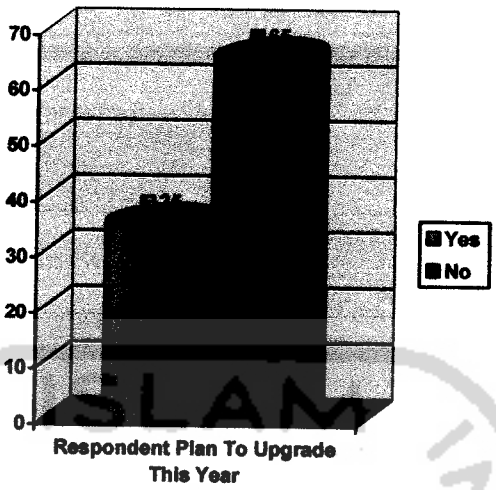


Figure 4.11.
Graphs of The Respondent's Plan in Upgrade This Year

The respondents are asked whether they have any plan to upgrade their current processor this year. The survey finding shows, that 35% of respondent have plan to upgrade their current processor this year, and 65% of respondent have no plan to upgrade their current processor this year, which most of them just bought their current processor in the early of this year or just last year. This finding shows that most customers in Yogyakarta have no plan in upgrading their current processor this year. (See Table 4.11)

4.2.1.12. Respondents' Plan in Upgrade Processor Brand This Year

In the Table 4.12 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's plan in upgrade their processor brand this year.

Table 4.12. Respondents' Future Processor

Future Processor		
Cluster	Number of Respondents	Percentage
AMD	14	40 %
Intel	21	60 %
Other	0	0 %
Total	35	100%

Source: the primary data (See Appendices)

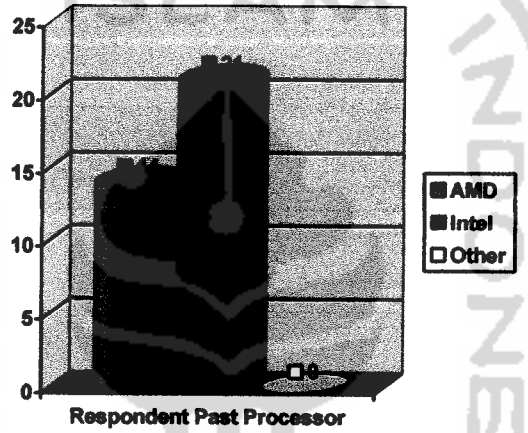


Figure 4.12

Graphs of The Respondent's Plan in Upgrade The Processor Brand This Year

The respondents are asked what processor brand that they are willing to buy in the future. The survey finding shows that 21% of respondent choose Intel processor, 14% of respondent choose AMD processor, and 0% of respondent choose to other processor. Total respondent are 35 based on the sixth question (Table 4.11). This finding shows that even for the future most of customers in Yogyakarta are willing to buy Intel processor.

4.2.1.13. Respondents' Current Processor Types

In the Table 4.13 below is the result of the questionnaires that were conducted in Jogja Expo Centre (JEC) Yogyakarta, which based on the respondent's current processor types.

The respondents are asked what processor type that they currently use. The survey finding shows that 46% of respondent choose Intel Pentium processor, 20% of respondent choose AMD Athlon processor, 12% of respondent choose AMD Duron/Sempron processor, 11% of respondent choose Intel Dual Core/Core 2 Duo processor, 9% of respondent are choose Intel Celeron, and 2% of respondent choose AMD X2/FX/Opteron processor.

Since AMD and Intel brand have same market segments, both of them have their own product for each segment. Low end user (e.g. Student, School, and Internet Cafe) usually uses computer for basic need such as for working, browsing internet, and low multimedia task. Mid end user (e.g. Gamer, Office, and Game Center) usually uses computer for mid multimedia task such as for game and working task faster. High end user (e.g. Server, Designer, and Professional user) usually uses computer for high multimedia task, 3D rendering, running server, doing multiple task at the same time. From AMD processors, Duron/Sempron are created for low end user, Athlon (Gamer, Office) are created for mid-end user and X2/FX/Opteron for high end user. Meanwhile from Intel processors,

Celeron are created for low end user, Pentium are created for mid end user and Dual Core/Core 2 Duo for high end user.

This finding shows that even though most of computer users are college students who use computer for working on their assignment, but most of customers in Yogyakarta are willing to buy mid end processor from AMD and Intel rather than high end and low end processor.

Table 4.13. The Respondents' Current Processor Types

Processor Type		
Cluster	Number of Respondents	Percentage
Duron/Sempron (XP/64)	12	12 %
Athlon (XP/64)	20	20 %
X2/FX/Opteron	2	2 %
Celeron	9	9 %
Pentium	46	46 %
Dual Core/Core 2 Duo	11	11 %
Total	100	100%

Source: the primary data (See Appendices)

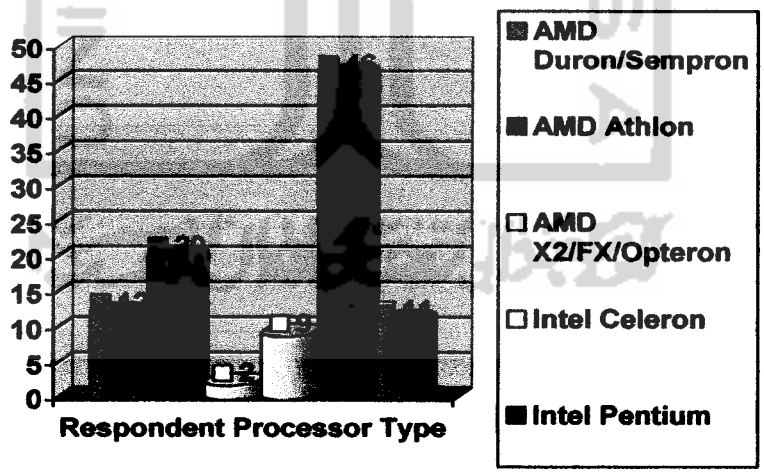


Figure 4.13.
Graphs of The Respondent's Current Processor Type

4.2.2. The Relationship between Brand Equity Attributes of Computer Microchip Processor and Customer Loyalty

The regression analysis is used to measure the impact of brand equity of computer microchip processor toward customer loyalty. Each variable of brand equity attributes is considered as the independent variable which will influence the customer loyalty as the dependent variable.

The impacts of the brand equity attributes on customer loyalty were evaluated by using multiple regression analysis. The multiple regressions are applied to analyse the effects of all variables on customer loyalty collectively.

4.2.2.1. Regression Analysis of Brand Equity Attribute and Customer Loyalty of AMD

Below is the model summary of the multiple regression analysis of the brand equity attributes on the customer loyalty of AMD.

$$Y = -1.795 + 0.309\ X_1 - 0.120\ X_2 + 0.342\ X_3 + 0.569\ X_4 + 0.118\ X_5$$

Where:

Y	: Customer Loyalty
X_1	: Identification
X_2	: Trustworthiness
X_3	: Image
X_4	: Value
X_5	: Performance

Table 4.14. Regression Results of AMD

Variable	B	T-test
Identification	0.309	1.286
Trustworthiness	- 0.120	- 0.485
Image	0.342	1.073
Value	0.569	2.106
Performance	0.118	0.458
F-test	: 4.920	
R^2	: 0.468	
Adjusted R square	: 0.373	
Significant F	: 0.002	

Source: the primary data (See Appendices)

The equation shows that the value of constant is negative (-1.795). The coefficient regression of Identification is 0.309. Coefficient regression of Trustworthiness is (-0.120), coefficient regression of Image is 0.342, coefficient regression of Value is 0,569 and coefficient regression of Performance is 0,118.

The regression equation can be explained as follows. The equation shows that the value of constant is negative (-1.795). Meaning that without the influences of independent variables (X1, X2, X3, X4, X5) the customer loyalty shows negative tendencies. Or implicitly indicates that customers do not have loyalty before influenced by the independent variables (X1, X2, X3, X4, X5).

The regression coefficient of identification (X1) is 0.309. Meaning to say when other independent variables are constant, each unit of identification will

increase customer loyalty (Y) by 0.309. The regression coefficient of trustworthiness (X2) is (-0.120). It explains that customer loyalty will decrease by (-0.120) if trustworthiness increases by 1 unit while other independent variable is constant. The regression coefficient of image (X3) is 0.342 meaning that customer loyalty will increase by 0.342 while other independent variable is constant. The regression coefficient of value (X4) is 0.569. It meaning that customer loyalty will increase by 0.569 if there is 1 unit rising of value when other independent variable is constant. The regression coefficient of performance (X5) is 0.118. It meaning when other independent variables are constant, each one unit of performance will increase customer loyalty by 0.118.

4.2.2.2. The Simultaneous Effect of Brand Equity to Customer Loyalty (F-test) of AMD

To prove the legitimacy of hypothesis 1, which states there is a relationship between brand equity and customer loyalty, F-test is employed. The objective of F-test is to find out the simultaneous effect of the independent variables (Identification (X1), Trustworthiness (X2), Image (X3), Value (X4), and Performance (X5)) on Customer Loyalty (Y). It can be seen from the ANOVA calculation of the linear regression analysis. The result of the analysis is considered significant when the value of F_{count} is greater than the value of F_{table}. The following is the hypothesis formulation:

1. Ho = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 = 0$

(Ho = There is no relationship between brand equity and customer loyalty)

2. Ha = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 \neq 0$

(Ha = There is a relationships between brand equity and customer loyalty)

The test criteria: α count < 0.05 = Ho is rejected Ha accepted

α count > 0.05 = Ho is accepted Ha is rejected

The significance level α=0.05 or 5%, The degree of freedom for numerator is k-1 that mean 5-1=4, degree of freedom for denumerator is n-k-1 that mean 34-5-1 = 28.

The computation derived from the SPSS shows that the value of F-count is 4.920, which is greater than the value of F-table which is 2.558. Therefore, Ho is rejected and Ha accepted. That means there is a relationship between brand equity and customer loyalty. It also can be concluded that all the independent variables identification (X1), trustworthiness (X2), image (X3), value (X4), and performance (X5) collectively can influence the customer loyalty (Y).

To find out how significant the influences of all independent variables toward the value of dependent variable, the indication can be observed through the determination coefficient (R^2). The value of R^2 exist between 0 and 1 ($0 < R^2 < 1$). The value of R^2 derived from SPSS calculation is 0.468 (46.8%). It means that the variables of brand equity such as identification (X1), trustworthiness (X2), image (X3), value (X4), and performance (X5) influence the customer loyalty of AMD by 46.8%. The remaining percentage of 53.2 % is explained by other influential factors which are not discussed deeper in this study.

4.2.2.3. The Partial Effect of Brand Equity to Customer Loyalty (T-test) of AMD

The objective of T-test is to check the significance level of each independent variable (X1, X2, X3, X4 and X5) toward the dependent variable (Y). In addition, T-test also can identify which one is the dominant factor. To prove the legitimacy of hypothesis 2, which stated value is the dominant factor of brand equity attributes that influence customer loyalty, T-test is employed.

The following is the hypothesis formulation:

1. Ho = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 = 0$

   (Ho = The independent variables have no significant influence to the dependent variable)

2. Ha = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 \neq 0$

   (Ha = The independent variables have significant influence to the dependent variable)

The test criteria: α count < 0.05 = Ho is rejected Ha accepted

α count > 0.05 = Ho is accepted Ha is rejected

Identification (X1)

$Y = a + b_1X_1$

$Y = 1.146 + 0.628X_1$

$R^2 = 0.229$	F-test = 9.524	T-test = 3.086
Adjusted R Square = 0.205	Significant F = 0.004	Significant T = 0.004

Source: the primary data (See Appendices)

Trustworthiness (X2)

$Y = a + b_2X_2$

$Y = 2.310 + 0.424X_2$

$R^2 = 0.085$	F-test = 2.962	T-test = 1.721
Adjusted R Square = 0.056	Significant F = 0.095	Significant T = 0.095

Source: the primary data (See Appendices)

Image (X3)

$Y = a + b_3X_3$

$Y = -0.147 + 0.876X_3$

$R^2 = 0.299$	F-test = 13.646	T-test = 3.694
Adjusted R Square = 0.277	Significant F = 0.001	Significant T = 0.001

Source: the primary data (See Appendices)

Value (X4)

$Y = a + b_4X_4$

$Y = -0.052 + 0.878X_4$

$R^2 = 0.342$	F-test = 16.656	T-test = 4.081
Adjusted R Square = 0.322	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Performance (X5)

$Y = a + b_5X_5$

$Y = 1.654 + 0.549X_5$

$R^2 = 0.185$	F-test = 7.281	T-test = 2.698
Adjusted R Square = 0.160	Significant F = 0.011	Significant T = 0.011

Source: the primary data (See Appendices)

Table 4.15. T-test Results of AMD

Independent Variables	P value	α	Result
Identification (X1)	0.004	0.05	Ha is accepted
Trustworthiness (X2)	0.095	0.05	Ha is rejected
Image (X3)	0.001	0.05	Ha is accepted
Value (X4)	0.000	0.05	Ha is accepted
Performance (X5)	0.011	0.05	Ha is accepted

Source: the primary data (See Appendices)

Based on the score of α_{value} presented in table above, the score of $Pvalue < \alpha$ = Ha is accepted and Ho is rejected. Thus, from the result of t-test, it can be concluded that the most dominant variable of brand equity attributes that influences customer loyalty (Y) of AMD is Value (X4) with score of α_{value} = 0.000 and adjusted R Square is 0.322.

4.2.2.4. Regression Analysis of Brand Equity Attribute and Customer Loyalty of Intel

Below is the model summary of the multiple regression analysis of the brand equity attributes on the customer loyalty of Intel.

$$\mathbf{Y = 0.069 + 0.133\ X_1 - 0.110\ X_2 + 0.084\ X_3 + 0.640\ X_4 + 0.149\ X_5}$$

Where:

Y : Customer Loyalty

X_1 : Identification

X_2 : Trustworthiness

X_3 : Image

X_4 : Value

X_5 : Performance

The equation shows that the value of constant is positive 0.069. The coefficient regression of Identification is 0.133. Coefficient regression of Trustworthiness is (-0.110), coefficient regression of Image is 0.084, coefficient regression of Value is 0,640 and coefficient regression of Performance is 0,149.

Table 4.16. Regression Results of Intel

Variable	B	T-test
Identification	0.133	1.057
Trustworthiness	- 0.110	- 0.964
Image	0.084	0.611
Value	0.640	4.455
Performance	0.149	1.146
F-test	: 19.355	
R^2	: 0.617	
Adjusted R square	: 0.585	
Significant F	: 0.000	

Source: the primary data (See Appendices)

The regression equation can be explained as follows. The equation shows that the value of constant is positive 0.069. Meaning that without the influences of independent variables (X1, X2, X3, X4, X5) the customer loyalty shows positive tendencies. It indicates that customer do have loyalty before influenced by the independent variables (X1, X2, X3, X4, X5), but it is very low before the other independent variables gave their influences.

The regression coefficient of identification (X1) is 0.133. Meaning to say when other independent variables are constant, each unit of identification will increase customer loyalty (Y) by 0.133. The regression coefficient of trustworthiness (X2) is (-0.110). It explains that customer loyalty will decrease by (-0.110) if trustworthiness increases by 1 unit while other independent variable is constant. The regression coefficient of image (X3) is 0.084 meaning that customer loyalty will increase by 0.084 while other independent variable is constant. The regression coefficient of value (X4) is 0.640 it means that customer loyalty will increase by 0.640 if there is 1 unit rising of value when other independent variable is constant. The regression coefficient of performance (X5) is 0.149. It means when other independent variables are constant, each unit of performance will increase customer loyalty by 0.149.

4.2.2.5. The Simultaneous Effect of Brand Equity to Customer Loyalty (F-test) of Intel

To prove the legitimacy of hypothesis 1, which states there is a relationship between brand equity and customer loyalty, F-test is employed. The

objective of F-test is to find out the simultaneous effect of the independent variables (Identification (X1), Trustworthiness (X2), Image (X3), Value (X4), and Performance (X5)) on Customer Loyalty (Y). It can be seen from the ANOVA calculation of the linear regression analysis. The result of the analysis is considered significant when the value of F_{count} is greater than the value of F_{table}.

The following is the hypothesis formulation:

1. Ho = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 = 0$

(Ho = There is no relationship between brand equity and customer loyalty)

2. Ha = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 \neq 0$

(Ha = There is a relationships between brand equity and customer loyalty)

The test criteria: α count < 0.05 = Ho is rejected Ha accepted

α count > 0.05 = Ho is accepted Ha is rejected

The significance level α=0.05 or 5%, The degree of freedom for numerator is k-1 that mean 5-1=4, degree of freedom for denumerator is n-k-1 that mean 66-5-1 = 60.

The computation derived from the SPSS shows that the value of F-count is 19.355, which is greater than the value of F-table which is 2.368. Therefore, Ho is rejected and Ha accepted. That means there is a relationship between brand equity and customer loyalty. It also can be concluded that all the independent variables identification (X1), trustworthiness (X2), image (X3), value (X4), and performance (X5) collectively can influence the customer loyalty (Y).

To find out how significant the influences of all independent variables toward the value of dependent variable, the indication can be observed through the

determination coefficient (R^2). The value of R^2 exist between 0 and 1 ($0 < R^2 < 1$). The value of R^2 derived from SPSS calculation is 0.617 (61.7%). It means that the variables of brand equity such as identification (X1), trustworthiness (X2), image (X3), value (X4), and performance (X5) influence the customer loyalty of Intel by 61.7%. The remaining percentage of 38.3 % is explained by other influential factors which are not discussed deeper in this study.

4.2.2.6. The Partial Effect of Brand Equity to Customer Loyalty (T-test) of Intel

The objective of T-test is to check the significance level of each independent variable (X1, X2, X3, X4 and X5) toward the dependent variable (Y). In addition, T-test also can identify which one is the dominant factor. To prove the legitimacy of hypothesis 2, which stated value is the dominant factor of brand equity attributes that influence customer loyalty, T-test is employed.

The following is the hypothesis formulation:

1. Ho = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 = 0$

   (Ho = The independent variables have no significant influence to the dependent variable)

2. Ha = $\beta 1, \beta 2, \beta 3, \beta 4, \beta 5 \neq 0$

   (Ha = The independent variables have significant influence to the dependent variable)

The test criteria: α count < 0.05 = Ho is rejected Ha accepted

α count > 0.05 = Ho is accepted Ha is rejected

Identification (X1)

$Y = a + b_1X_1$

$Y = 1.261 + 0.587X_1$

$R^2 = 0.356$	F-test = 35.424	T-test = 5.952
Adjusted R Square = 0.346	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Trustworthiness (X2)

$Y = a + b_2X_2$

$Y = 1.856 + 0.469X_2$

$R^2 = 0.254$	F-test = 21.839	T-test = 4.673
Adjusted R Square = 0.243	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Image (X3)

$Y = a + b_3X_3$

$Y = 0.909 + 0.637X_3$

$R^2 = 0.408$	F-test = 44.175	T-test = 6.646
Adjusted R Square = 0.399	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Value (X4)

$Y = a + b_4X_4$

$Y = 0.480 + 0.822X_4$

$R^2 = 0.576$	F-test = 87.104	T-test = 9.333
Adjusted R Square = 0.570	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Performance (X5)

$Y = a + b_5X_5$

$\mathbf{Y = 1.274 + 0.599X_5}$

$R^2 = 0.377$	F-test = 38.805	T-test = 6.229
Adjusted R Square = 0.368	Significant F = 0.000	Significant T = 0.000

Source: the primary data (See Appendices)

Table 4.17. T-test Results of Intel

Independent Variables	P value	α	Result
Identification (X1)	0.000	0.05	Ha is accepted
Trustworthiness (X2)	0.000	0.05	Ha is accepted
Image (X3)	0.000	0.05	Ha is accepted
Value (X4)	0.000	0.05	Ha is accepted
Performance (X5)	0.000	0.05	Ha is accepted

Source: the primary data (See Appendices)

Based on the score of α_{value} presented in table above, the score of $Pvalue < \alpha$ = Ha is accepted and Ho is rejected. Thus, from the result of t-test, it can be concluded that the most dominant variable of brand equity attributes that influences customer loyalty (Y) of Intel is Value (X4) with score of adjusted R Square is 0.570 since all variables have $\alpha_{value} = 0.000$.

4.3. Implication

This research shows that there is relationship between brand equity and customer loyalty (See Table 4.14 and 4.16). And the result shows a positive relationship. The dominant factor of brand equity that influences customer loyalty at the most is value because it shows the biggest number of result (See Table 4.15 and 4.17). Customers of computer microchip processor consider the value of product brand before they could become loyal to the product brand itself, and it happens for both AMD and Intel brand.

For AMD brand it shows that the brand equity attributes which most influence customer loyalty after value are image, identification, performance, and trustworthiness. While for Intel brand it shows that the brand equity attributes which most influence customer loyalty after value are image, performance, identification, and trustworthiness.

Table 4.18 The Results for AMD and Intel

No.	Brand Equity	AMD	Intel
1.	Identification (X1)	Value	Value
2.	Trustworthiness (X2)	Image	Image
3.	Image (X3)	Identification	Performance
4.	Value (X4)	Performance	Identification
5.	Performance (X5)	Trustworthiness	Trustworthiness

Source: the primary data (See Appendices)

From the past experience both AMD and Intel had understood that most of people purchase processor product base on the consideration that the value of the product more than the performance of the product itself. What customer received and what they give up to receive it are very important. Because both companies

continuously create products for each segment (low end, mid end, and high end) to meet customer expectations.

Both companies know that it is only the matter of time for both of them to lead as the fastest processor brand in the world, and one company leads in this time while the other company leads next time it launches its new product. It makes most of people think that it's only wasting their money if they purchase highest performance processor in the world from one brand which cost very expensive (price for new release product), and just for three up to six months their processors are not the fastest anymore and the price of their processor will fall down a lot because there'll be new replacement products for the performance segment.

While if customers tend to purchase processors that have more value (usually from low and mid end product) which mean processors that would give the performance in the reasonable price, the customer will be satisfied and would think value as their main reason whenever they purchase or repurchase the processor product. For example from the research, a college student is happy to have AMD Sempron or Intel Celeron to run their system for working their assignment, watching movies, playing games, listening music, browsing internet, and all can be done only by paying around 30-40$ for the processor. Even there are customers who tend to purchase processor because of its performance, but there are only a few of them that are willing to pay the price of the product which cost around 70-80$ for mid end and more than 120$ for high end products.

It's quite interesting for AMD that identification affect customer loyalty better than the performance, and while for Intel performance effect customer loyalty better than identification. Why it's interesting? Because before 1999 most of people still did not understand about AMD product because they were lack of advertisement, and only a few of customers that understood about it. Moreover, usually people knew and became loyal to AMD brand because of its performance that could beat Intel products in lower price not because of the image and identification. And in the other hand for Intel, in the past most of people became loyal to the brand because of its image and identification with its "Intel Inside" advertisement rather than its performance which in that time the performance was relatively standard and cost in higher price.

The research results show that both companies improve their main weakness to attract customer to become loyal to their products. AMD had promoted their product by becoming sponsor for sport such as Formula 1 (F1) championship and Italian Serie A League, and in 2003 AMD show their fang by creating the first processor which support 64-bit extension and up to in the middle of 2006 become the fastest and value processor in the world. Also with their merger with ATI Technologies in July 2006, its make people in the world acknowledge AMD as one of the big processor company beside Intel. While Intel company show their fang after in the last quarter of 2006 they created Core 2 Duo processor that beat AMD fast processor badly. The results are making people become believe that Intel processors are the highest performance processor in the world right now.

While for both companies, trustworthiness has the less effect to customer loyalty. In 2005, following an investigation, the Japan Federal Trade Commission found Intel guilty on a number of violations. On June 27, 2005, AMD won an antitrust suit against Intel in Japan, and on the same day, AMD filed a broad antitrust complaint against Intel in the U.S. Federal District Court in Delaware. The complaint alleges systematic use of secret rebates, special discounts, threats, and other means used by Intel to lock AMD processors out of the global market. Since the start of this action, AMD has issued subpoenas to major computer manufacturers including Dell, Microsoft, IBM, HP, Sony, Toshiba. From the explanation above and also from the research it can be concluded that even Intel found guilty for antitrust but still most of people use Intel product as their processor, as related to the research where for both AMD and Intel that trustworthiness have less influence to customer loyalty.

So from the research it can be concluded that customers disregard some of the factors of brand attributes toward certain processor brand in their buying loyalty, due to highly competitive microchip processor market, customers tend not to have "rigid" loyalty for certain brand of processor product. The other reason is all of processor products in the market relatively offering typical product in the same price and performance. It make customer to purchase/repurchase products based on their main purpose in using the computer, which mean that they are choosing the value of the product as their main reason more than other brand equity attributes such as image, identification, performance, and trustworthiness.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study has focused on identifying the underlying dimensions of customer based brand equity which comprised of Identification, Trustworthiness, Image, Value, and Performance and its relationship with customer loyalty in computer microchip processor in Yogyakarta.

5.1. Conclusions

1. The results show that brand equity has a significant relationship toward customer loyalty both in AMD and Intel brand (See Table 4.14 and Table 4.16).
2. The most dominant factor of brand equity dimensions on customer loyalty for both AMD and Intel are same which is Value (See Table 4.15 and Table 4.17). For AMD the most dominant factor in influencing customer loyalty is Value followed by Image, Identification, Performance, and Trustworthiness. For Intel the most dominant factor in influencing customer loyalty is Value followed by Image, Performance, Identification, and Trustworthiness (See Table 4.18).
3. Customers are less considering about trustworthiness variables when they intend to become loyal the processor product. Both in AMD and Intel trustworthiness are in the lowest rank.

5.2. Recommendations

1. Value is appearing to have the strongest effect to the customer loyalty in computer microchip processor. The reason is because in Yogyakarta most of customers of microchip processor market are from low to middle class of economic. Therefore, marketers must be prepared and must focus on detail and comprehensive knowledge of the value of their products to be promoted to customer. By understanding the complete information about brand equity, a marketer will be able to make the right strategy and appropriate effort of advertisement or other promotional action to increase the brand equity.
2. The company should not focus their concern on the value alone, as it is used to be believed as the main factor that will trigger the customer loyalty, but should also optimize the other variables of brand equity, especially performance and image to have the optimum effort of purchasing stimulation. Common customer will see image as their main reason to become loyal to the product brand, and while enthusiastic user will see performance as their main reason to become loyal to the product brand.
3. Customer should have adequate knowledge of all information and knowledge of the product before they tend to become loyal to the product. Sometimes the higher price product does not mean higher capabilities compared to lower price products, it depends on the customer's need and aim in using the product.

References

Aaker David. A (1991). *Managing Brand Equity : Capitalizing on the value of a Brand Name*, The Free Press, New York.

Aaker, David A. (1996). "Measuring brand equity across products and markets", *California Management Review*. Berkeley Spring; Vol. 38, ISS. 3; pg. 102

Arjun Chaudhuri. (1999). "Does brand loyalty mediate brand equity outcomes?", *Journal of Marketing Theory and Practice.* Statesboro: Vol.7, Iss. 2; pg. 136, 11 pgs

Arjun Chaudhuri, Morris B Holbrook. (2001). "The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty", *Journal of Marketing.* Chicago: Vol.65 Iss. 2; pg. 81, 13 pgs

Baldinger, Allan L., Rubinson, Joel. (1996). Brand Loyalty: "The link between attitude and behavior", *Journal of Advertising Research*, 00218499, Vol. 36, Issue 6

Banwari Mittal, Walfried M. Lassar. (1998). "Why do customers switch? The dynamics of satisfaction versus loyalty", *The Journal of Services Marketing*. Santa Barbara: Vol.12, Iss. 3; pg. 177

Chris A Myers. (2003) "Managing brand equity: A look at the impact of attributes", *The Journal of Product and Brand Management*; 12, 1; ABI/INFORM Global pg. 39

Cobb-Walgren, Cathy J., Ruble, Cynthia A. (1995). "Brand equity, brand preference, and purchase intent", *Journal of Advertising*, 00913367, Vol. 24, Issue 3

Deepak Sirdeshmukh, Jagdip Singh, Barry Sabol. (2002). "Consumer trust, value, and loyalty in relational exchanges", *Journal of Marketing.* Chicago: Vol.66, Iss. 1; pg. 15, 23 pgs

Keshav Prasad, Chekitan S Dev.(2000). "Managing hotel brand equity: A customer-centric framework for assessing performance", *Cornell Hotel and Restaurant Administration Quarterly*. Ithaca: Vol.41, Iss. 3; pg. 22, 10 pgs

Kotler, Phillip H and Gary Armstrong (1996) *Principles of Marketing*, 7th ed. Englewood Cliffs, NJ Prentice-Hall, INC

Lassar, Walfried, Mittal, Banwari, Sharma, Arun. (1995). "Measuring customer-based brand equity", *The Journal of Consumer Marketing*, Santa Barbara: Vol.12, Iss. 4; pg. 11, 9 pgs

Norris, Donald G. (1993). ""Intel Inside" Branding a component in a business market", *The Journal of Business & Industrial Marketing*; 8, 1; ABI/INFORM Global pg. 14

Sekaran, Uma. (2000). 'Research Method for Business: A Skill Building Approach', 3rd ed., New York: John Wiley and Sons

Sinuhaji, D.E. (2005). "The analysis of customer based brand equity toward consumer's purchase intention of fast food restaurants", *Islamic University of Indonesia*. pg. 58

Steven A Taylor, Kevin Celuch, Stephen Goodwin. (2004). "The Importance of brand equity to customer loyalty", *The Journal of Product and Brand Management*; 13, 4/5; ABI /INFORM Global, pg. 217

Vikas Mittal, Wagner A Kamakura. (2001). "Satisfaction, repurchases intent, and repurchases behavior: Investigating the moderating effect of customer characteristics", *JMR, Journal of Marketing Research*. Chicago: Vol.38, Iss. 1; pg. 131, 12 pgs

V. Srinivasan; Chan Su Park; Dae Ryun Chang. (2005). "An approach to the measurement, analysis, and prediction of brand equity and its sources", *Management Science*; 51(9), pg. 1433

Woo Gon Kim; Hong-Bumm Kim. (2004). "Measuring customer based restaurant brand equity", *Cornell Hotel and Restaurant Administration Quarterly*; 45, 2; ABI/INFORM Global pg. 115

Zeithaml, Valarie A.. (1988). "Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence", *Journal of Marketing*. Chicago: Vol.52, Iss. 3; pg. 2, 21 pgs

APPENDICES

Brand Equity Evaluation

Dear Mr./Mrs./Miss

Assalamualaikum wr. wb.

My name is Doni Rachmawan, a University student of International Program FE UII, which is in the process of thesis research with the title: The Analysis of Brand Equity to Customer Loyalty of Computer Microchip Processor: A Case Study of AMD and Intel in Yogyakarta.

On this occasion, I expect your willingness to participate in this research by answering the questionnaire below, based on your opinion. The result of this questionnaire will be used for scientific importance, and will not be used for the related brand commercial of particular product.

Thank you for your participation.

Wassalamualaikum wr. wb.

Direction: **Put your answer toward the questions by crossing (x) your choice**

1. Do you have any computer?
   a. Yes
   b. No

2. What kind of brand processor are you using right now? **(Choose one)**
   a. AMD
   b. Intel
   c. Others _____

3. What kind of brand processor are you using before? **(Choose one)**
   a. AMD
   b. Intel
   c. Others _____

4. Why do you choose your previous processor? **(Choose one)**
   a. Availability
   b. Compatibility
   c. Performance
   d. Price
   e. Guarantee

5. How many times you upgrade your processor (computer) in a year?
   a. Never
   b. Once
   c. More than once

6. Do you have any plan to upgrade your processor in this year?
   a. Yes
   b. No

7. If you have any plan to upgrade your processor, what brand that you will use?
   a. AMD
   b. Intel
   c. Others _____

8. What processor that you are using right now? **(Choose one)**
   a. AMD Duron/Sempron
   b. AMD Athlon/XP/64
   c. AMD X2/FX/Opteron
   d. Intel Celeron
   e. Intel Pentium
   f. Intel Dual Core/Core 2 Duo

Your Identity

Direction: **Answer the question by putting sign (√) to your choice:**

What is your gender?	
....	Female
....	Male

How old are your age?	
....	Below 20 years old
....	21 - 25 years old
....	26 – 30 years old
....	31 – 35 years old
....	More than 35 years old

How much is your income monthly?	
....	Below Rp. 500.000
....	Rp. 500.001 - Rp. 1.000.000
....	Rp. 1.000.001 - Rp. 1.500.000
....	Rp. 1.500.001 - Rp. 2.000.000
....	More than Rp. 2.000.000

What is your occupation?	
....	Student
....	University student
....	Official gvt. employee
....	Private employee
....	Others _____

What is your main objective in using computer?	
....	Working school/university
....	Multimedia tool
....	Internet
....	Business/Work
....	Hobby/Competition (Overclocking)
....	Others _____

Direction: **Put your answer toward the statement below, by circling (O) your choice**

1. = Strongly Disagree (SD)	3. = Rather Disagree (RD)	5. = Agree (A)
2. = Disagree (D)	4. = Rather Agree (RA)	6. = Strongly Agree (SA)

BRAND EQUITY STATEMENT

Statement about Attachment/Identification	SD	D	RD	RA	A	SA
1. After using this product brand, I am very likely to grow fond of it	1	2	3	4	5	6
2. For this product brand, I have positive personal feeling	1	2	3	4	5	6
3. With time, I will develop a warm feeling toward this product brand	1	2	3	4	5	6

Statement about Trustworthiness	SD	D	RD	RA	A	SA
1. I consider the company and people who stand behind this brand to be very trustworthy	1	2	3	4	5	6
2. In regard to consumer interests, this company seems to be very caring	1	2	3	4	5	6
3. I believe that this company does not take advantage of consumers	1	2	3	4	5	6

Statement about Image	SD	D	RD	RA	A	SA
1. This brand fits my personality	1	2	3	4	5	6
2. I would be proud to own a product of this brand	1	2	3	4	5	6
3. This brand will be well regarded by my friends	1	2	3	4	5	6

Statement about Value	SD	D	RD	RA	A	SA
1. This brand is well priced	1	2	3	4	5	6
2. Considering what I would pay for this product brand, I will get much more than my money's worth	1	2	3	4	5	6
3. I considered this product brand to be a bargain because of the benefits	1	2	3	4	5	6

Statement about Performance	SD	D	RD	RA	A	SA
1. From this brand, I can expect superior performance	1	2	3	4	5	6
2. During use, this brand is highly unlikely to be defective	1	2	3	4	5	6
3. This brand is made so as to work trouble free	1	2	3	4	5	6
4. This brand will work very well	1	2	3	4	5	6

CUSTOMER LOYALTY STATEMENT

Statement about Customer Loyalty	SD	D	RD	RA	A	SA
1. I use the product brand I am evaluating because it is the best choice for me	1	2	3	4	5	6
2. I consider myself to be a loyal patron of the product brand I am evaluating.	1	2	3	4	5	6
3. I am committed to the product brand I am evaluating	1	2	3	4	5	6
4. In the future, I would be willing to pay a higher price for the product brand I am evaluating over competitive offerings	1	2	3	4	5	6
5. I consider the product brand I am evaluating my first choice when buying	1	2	3	4	5	6
6. In the future, I consider the product brand I am evaluating my first choice when buying	1	2	3	4	5	6
7. I would not switch to a competitor, even if I had a problem with the products/services of the product brand I am evaluating	1	2	3	4	5	6
8. I intend to keep buying the product brand I am evaluating	1	2	3	4	5	6
9. I intend to purchase the product brand I am evaluating in the future	1	2	3	4	5	6
10. I recommend this product brand to all my friends	1	2	3	4	5	6

Thank you for your time!

Evaluasi Nilai (Ekuitas) Merek

Yth.bapak/Ibu/Saudara

Di Tempat

Assalamualaikum wr. wb.

Saya, Doni Rachmawan, mahasiswa Program Internasional FE UII sedang melakukan penelitian skripsi dengan judul: Analisis Ekuitas Merek (Kekuatan Merek) terhadap kesetiaan konsumen pada pasar *processor* : Studi kasus AMD dan Intel di Yogyakarta.

Pada kesempatan ini, saya mengharap kesediaan Bapak/Ibu/Saudara untuk berpartisipasi dalam penelitian ini dengan cara menjawab kuesioner berikut sesuai pendapat Bapak/Ibu/Saudara. Hasil dari kuesioner ini hanya digunakan unuk keperluan ilmiah, dan tidak dikaitkan dengan keperluan komersial merk produk tertentu.

Terimakasih atas partisipasi Bapak/Ibu/Saudara.

Wassalamualaikum wr. wb.

Petunjuk: **Berilah penilaian Bapak/Ibu/Saudara/i terhadap pernyataan dibawah ini dengan MENYILANG (X) pilihan yang sesuai**

1. Apakah anda memiliki komputer?
   a. Ya
   b. Tidak

2. Apa nama merk *processor* yang anda gunakan saat ini? (**Pilih Salah Satu**)
   a. AMD
   b. Intel
   c. Lainnya (sebutkan)_____

3. Apa nama merk *processor* yang anda gunakan sebelumnya? (**Pilih Salah Satu**)
   a. AMD
   b. Intel
   c. Lainnya (sebutkan)_____

4. Apa alasan anda memilih *processor* yang anda gunakan saat ini? (**Pilih Salah Satu**)
   a. Ketersediaan produk
   b. Kecocokan dengan hardware/software lain
   c. Kinerja
   d. Harga
   e. Garansi

5. Berapa kali anda meng*upgrade processor* (komputer) anda dalam setahun ?
   a. Tidak pernah
   b. 1 kali
   c. >1 kali

6. Apakah anda memiliki rencana untuk meng*upgrade processor* tahun ini?
   a. Ya
   b. Tidak

7. Jika anda berencana untuk meng*upgrade processor*, merk apa yang akan anda gunakan? (**Pilih Salah Satu**)
   a. AMD
   b. Intel
   c. Lainnya (sebutkan)_____

8. Apa nama *processor* yang anda gunakan saat ini? (**Pilih Salah Satu**)
   a. AMD Duron/Sempron
   b. AMD Athlon/XP/64
   c. AMD X2/FX/Opteron
   d. Intel Celeron
   e. Intel Pentium
   f. Intel Dual Core/Core 2 Duo

Jati Diri Saudara

Petunjuk: **Jawablah pertanyaan – pertanyaan berikut dengan memberi tanda (√) pada pilihan yang sesuai:**

Apa jenis kelamin anda?	
....	Perempuan
....	Lelaki

Berapa usia anda pada saat ini?	
....	Dibawah 20 tahun
....	21 - 25 tahun
....	26 – 30 tahun
....	31 – 35 tahun
....	Lebih dari 35 tahun

Berapa uang saku atau pendapatan anda tiap bulan?	
....	Dibawah Rp. 500.000
....	Rp. 500.001 - Rp. 1.000.000
....	Rp. 1.000.000 - Rp. 1.500.000
....	Rp. 1.500.000 - Rp. 2.000.000
....	Lebih dari Rp. 2.000.000

Apa jenis pekerjaan anda?	
....	Pelajar
....	Mahasiswa
....	PNS
....	Pegawai Swasta
....	Lainnya _____

Apa tujuan utama anda menggunakan komputer?	
....	Mengerjakan tugas sekolah/kuliah
....	Sarana multimedia
....	Internet
....	Keperluan bisnis/bekerja
....	Hobi/Kompetisi (Overclocking)
....	Lainnya _____

Petunjuk: **Berilah penilaian Bapak/Ibu/Saudara/i terhadap pernyataan dibawah ini dengan MELINGKARI (O) angka yang sesuai**

1. = Sangat Tidak Setuju (STS)
2. = Tidak Setuju (TS)
3. = Agak Tidak Setuju (ATS)
4. = Agak Setuju (AS)
5. = Setuju (S)
6. = Sangat Setuju (SS)

PERNYATAAN TENTANG ATRIBUT EKUITAS MEREK

Pernyataan tentang Pengenalan	STS	TS	ATS	AS	S	SS
1. Seiring waktu, saya mulai merasa senang menggunakan produk merek ini	1	2	3	4	5	6
2. Setelah menggunakan produk merek ini, saya mulai menyukainya	1	2	3	4	5	6
3. Saya punya perasaan positif terhadap produk merek ini	1	2	3	4	5	6

Pernyataan tentang Sifat	STS	TS	ATS	AS	S	SS
1. Saya menganggap perusahaan dan orang-orang dibalik merek ini dapat dipercaya	1	2	3	4	5	6
2. Dalam menanggapi minat konsumen, perusahaan ini cukup perhatian	1	2	3	4	5	6
3. Saya percaya bahwa perusahaan ini tidak mengambil kesempatan dari konsumen	1	2	3	4	5	6

Pernyataan tentang Kesan	STS	TS	ATS	AS	S	SS
1. Produk merek ini sesuai dengan keinginan saya	1	2	3	4	5	6
2. Saya bangga memiliki produk dari merek ini	1	2	3	4	5	6
3. Produk merek ini cukup dikenali oleh para pengguna komputer	1	2	3	4	5	6

Pernyataan tentang Nilai	STS	TS	ATS	AS	S	SS
1. Produk merek ini harganya tepat	1	2	3	4	5	6
2. Dari produk merek ini saya memperoleh lebih dibanding dari yang saya bayarkan	1	2	3	4	5	6
3. Saya memilih produk merek ini karena produk ini nilainya tinggi	1	2	3	4	5	6

Pernyataan tentang Kinerja	STS	TS	ATS	AS	S	SS
1. Saya yakin, produk merek ini tidak cacat dari pabrik (Kualitas kontrol yang tinggi)	1	2	3	4	5	6
2. Produk merek ini bebas masalah	1	2	3	4	5	6
3. Produk merek ini bekerja dengan baik	1	2	3	4	5	6
4. Produk merek ini kinerjanya tinggi	1	2	3	4	5	6

PERNYATAAN TENTANG KESETIAAN KONSUMEN

Pernyataan tentang Kesetiaan	STS	TS	ATS	AS	S	SS
1. Saya menggunakan produk merek ini karena ini yang terbaik untuk saya	1	2	3	4	5	6
2. Saya menganggap diri saya setia terhadap produk merek ini	1	2	3	4	5	6
3. Saya mempunyai komitmen terhadap produk merek ini	1	2	3	4	5	6
4. Untuk waktu yang akan datang, saya bersedia membayar lebih mahal untuk produk merek ini	1	2	3	4	5	6
5. Saya mempertimbangkan produk merek ini sebagai pilihan pertama dalam membeli atau menggunakannya	1	2	3	4	5	6
6. Diwaktu yang akan datang, saya mempertimbangkan produk merek ini sebagai pilihan pertama dalam membeli atau menggunakannya	1	2	3	4	5	6
7. Saya tidak akan beralih ke produk merek lain, walaupun saya mengalami masalah dengan produk merek yang saya gunakan saat ini	1	2	3	4	5	6
8. Saya bermaksud untuk terus membeli atau menggunakan produk merek ini	1	2	3	4	5	6
9. Diwaktu yang akan datang, saya bermaksud untuk membeli produk merek ini	1	2	3	4	5	6
10. Saya merekomendasikan produk merek ini ke teman-teman	1	2	3	4	5	6

TERIMAKASIH ATAS WAKTU ANDA!

Validity Test (30 respondents)

Identification or Attachment

Correlations

		X1.1	X1.2	X1.3	sum_X1
X1.1	Pearson Correlation	1	,724**	,676**	,932**
	Sig. (2-tailed)		,000	,000	,000
	N	30	30	30	30
X1.2	Pearson Correlation	,724**	1	,520**	,849**
	Sig. (2-tailed)	,000		,003	,000
	N	30	30	30	30
X1.3	Pearson Correlation	,676**	,520**	1	,832**
	Sig. (2-tailed)	,000	,003		,000
	N	30	30	30	30
sum_X1	Pearson Correlation	,932**	,849**	,832**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	30	30	30	30

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

Trustworthiness

Correlations

		X2.1	X2.2	X2.3	sum_X2
X2.1	Pearson Correlation	1	,646**	,449*	,858**
	Sig. (2-tailed)		,000	,013	,000
	N	30	30	30	30
X2.2	Pearson Correlation	,646**	1	,358	,812**
	Sig. (2-tailed)	,000		,052	,000
	N	30	30	30	30
X2.3	Pearson Correlation	,449*	,358	1	,759**
	Sig. (2-tailed)	,013	,052		,000
	N	30	30	30	30
sum_X2	Pearson Correlation	,858**	,812**	,759**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	30	30	30	30

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

*. Correlation is significant at the 0.05 level (2-tailed).

Image

Correlations

		X3.1	X3.2	X3.3	sum_X3
X3.1	Pearson Correlation	1	,580**	,464**	,872**
	Sig. (2-tailed)		,001	,010	,000
	N	30	30	30	30
X3.2	Pearson Correlation	,580**	1	,359	,836**
	Sig. (2-tailed)	,001		,052	,000
	N	30	30	30	30
X3.3	Pearson Correlation	,464**	,359	1	,691**
	Sig. (2-tailed)	,010	,052		,000
	N	30	30	30	30
sum_X3	Pearson Correlation	,872**	,836**	,691**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	30	30	30	30

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

Value

Correlations

		X4.1	X4.2	X4.3	sum_X4
X4.1	Pearson Correlation	1	,642**	,349	,792**
	Sig. (2-tailed)		,000	,058	,000
	N	30	30	30	30
X4.2	Pearson Correlation	,642**	1	,487**	,851**
	Sig. (2-tailed)	,000		,006	,000
	N	30	30	30	30
X4.3	Pearson Correlation	,349	,487**	1	,792**
	Sig. (2-tailed)	,058	,006		,000
	N	30	30	30	30
sum_X4	Pearson Correlation	,792**	,851**	,792**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	30	30	30	30

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

Performance

Correlations

		X5.1	X5.2	X5.3	X5.4	sum_X5
X5.1	Pearson Correlation	1	,694**	,375*	,346	,768**
	Sig. (2-tailed)		,000	,041	,061	,000
	N	30	30	30	30	30
X5.2	Pearson Correlation	,694**	1	,456*	,373*	,829**
	Sig. (2-tailed)	,000		,011	,042	,000
	N	30	30	30	30	30
X5.3	Pearson Correlation	,375*	,456*	1	,661**	,781**
	Sig. (2-tailed)	,041	,011		,000	,000
	N	30	30	30	30	30
X5.4	Pearson Correlation	,346	,373*	,661**	1	,751**
	Sig. (2-tailed)	,061	,042	,000		,000
	N	30	30	30	30	30
sum_X5	Pearson Correlation	,768**	,829**	,781**	,751**	1
	Sig. (2-tailed)	,000	,000	,000	,000	
	N	30	30	30	30	30

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

*. Correlation is significant at the 0.05 level (2-tailed).

Customer Loyalty

Correlations

		Y1.1	Y1.2	Y1.3	Y1.4	Y1.5	Y1.6	Y1.7	Y1.8	Y1.9	Y1.10	sum_Y1
Y1.1	Pearson Correlation	1	,590**	,574**	,398*	,638**	,529**	,639**	,665**	,664**	,675**	,775**
	Sig. (2-tailed)		,001	,001	,030	,000	,003	,000	,000	,000	,000	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.2	Pearson Correlation	,590**	1	,819**	,540**	,682**	,609**	,549**	,721**	,674**	,550**	,819**
	Sig. (2-tailed)	,001		,000	,002	,000	,000	,002	,000	,000	,002	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.3	Pearson Correlation	,574**	,819**	1	,451*	,688**	,665**	,570**	,737**	,618**	,465**	,802**
	Sig. (2-tailed)	,001	,000		,012	,000	,000	,001	,000	,000	,010	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.4	Pearson Correlation	,398*	,540**	,451*	1	,579**	,550**	,422*	,567**	,504**	,529**	,682**
	Sig. (2-tailed)	,030	,002	,012		,001	,002	,020	,001	,005	,003	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.5	Pearson Correlation	,638**	,682**	,688**	,579**	1	,808**	,575**	,825**	,781**	,592**	,879**
	Sig. (2-tailed)	,000	,000	,000	,001		,000	,001	,000	,000	,001	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.6	Pearson Correlation	,529**	,609**	,665**	,550**	,808**	1	,633**	,839**	,825**	,583**	,870**
	Sig. (2-tailed)	,003	,000	,000	,002	,000		,000	,000	,000	,001	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.7	Pearson Correlation	,639**	,549**	,570**	,422*	,575**	,633**	1	,672**	,740**	,458*	,782**
	Sig. (2-tailed)	,000	,002	,001	,020	,001	,000		,000	,000	,011	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.8	Pearson Correlation	,665**	,721**	,737**	,567**	,825**	,839**	,672**	1	,814**	,555**	,908**
	Sig. (2-tailed)	,000	,000	,000	,001	,000	,000	,000		,000	,001	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.9	Pearson Correlation	,664**	,674**	,618**	,504**	,781**	,825**	,740**	,814**	1	,547**	,885**
	Sig. (2-tailed)	,000	,000	,000	,005	,000	,000	,000	,000		,002	,000
	N	30	30	30	30	30	30	30	30	30	30	30
Y1.10	Pearson Correlation	,675**	,550**	,465**	,529**	,592**	,583**	,458*	,555**	,547**	1	,731**
	Sig. (2-tailed)	,000	,002	,010	,003	,001	,001	,011	,001	,002		,000
	N	30	30	30	30	30	30	30	30	30	30	30
sum_Y1	Pearson Correlation	,775**	,819**	,802**	,682**	,879**	,870**	,782**	,908**	,885**	,731**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	
	N	30	30	30	30	30	30	30	30	30	30	30

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

*. Correlation is significant at the 0.05 level (2-tailed).

Reliability Test (30 respondents)

Identification or Attachment

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.839	3

Trustworthiness

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.734	3

Image

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.721	3

Value

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.728	3

Performance

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.785	4

Customer Loyalty

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.940	10

Uji Deskriptif

A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Punya komputer	100	100,0	100,0	100,0

A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AMD	34	34,0	34,0	34,0
	INTEL	66	66,0	66,0	100,0
	Total	100	100,0	100,0	

A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AMD	33	33,0	33,0	33,0
	INTEL	67	67,0	67,0	100,0
	Total	100	100,0	100,0	

A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ketersediaan Produk	7	7,0	7,0	7,0
	Kecocokan dengan hardware	14	14,0	14,0	21,0
	Kinerja	60	60,0	60,0	81,0
	Harga	16	16,0	16,0	97,0
	Garansi	3	3,0	3,0	100,0
	Total	100	100,0	100,0	

A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak Pernah	42	42,0	42,0	42,0
	1 kali	39	39,0	39,0	81,0
	>1 kali	19	19,0	19,0	100,0
	Total	100	100,0	100,0	

A6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Punya rencana Mengupgrade	35	35,0	35,0	35,0
	Tidak	65	65,0	65,0	100,0
	Total	100	100,0	100,0	

A7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AMD	14	14,0	40,0	40,0
	INTEL	21	21,0	60,0	100,0
	Total	35	35,0	100,0	
Missing	System	65	65,0		
Total		100	100,0		

A8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AMD Duron/Sempron	12	12,0	12,0	12,0
	AMD Athlon/XP/64	20	20,0	20,0	32,0
	AMD X2/FX/Opteron	2	2,0	2,0	34,0
	Intel Celeron	9	9,0	9,0	43,0
	Intel Pentium	46	46,0	46,0	89,0
	Intel Dual Core/Core 2 Duo	11	11,0	11,0	100,0
	Total	100	100,0	100,0	

K1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Perempuan	23	23,0	23,0	23,0
	Lelaki	77	77,0	77,0	100,0
	Total	100	100,0	100,0	

K2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	dibawah 20th	18	18,0	18,0	18,0
	21-25th	71	71,0	71,0	89,0
	26-30th	10	10,0	10,0	99,0
	31-35th	1	1,0	1,0	100,0
	Total	100	100,0	100,0	

K3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dibawah Rp500.000,-	26	26,0	26,0	26,0
	Rp500.001 - Rp1.000.000,-	54	54,0	54,0	80,0
	Rp1.000.000 - Rp1.500.000	14	14,0	14,0	94,0
	Rp1.500.000 - Rp2.000.000,-	3	3,0	3,0	97,0
	Lebih dari Rp2.000.000,-	3	3,0	3,0	100,0
	Total	100	100,0	100,0	

K4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pelajar	7	7,0	7,0	7,0
	Mahasiswa	76	76,0	76,0	83,0
	PNS	1	1,0	1,0	84,0
	Pegawai Swasta	7	7,0	7,0	91,0
	Lainnya	9	9,0	9,0	100,0
	Total	100	100,0	100,0	

K5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mengerjakan Tugas Sekolah	50	50,0	50,0	50,0
	Sarana Multimedia	20	20,0	20,0	70,0
	Internet	4	4,0	4,0	74,0
	Keperluan Bisnis/Bekerja	15	15,0	15,0	89,0
	Hobi/Kompetisi	8	8,0	8,0	97,0
	Lainnya	3	3,0	3,0	100,0
	Total	100	100,0	100,0	

Regression AMD Dan INTEL

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Performance, identification, Trustworthiness, Value, Image[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Customer Loyality

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,738[a]	,545	,521	,63601	1,946

a. Predictors: (Constant), Performance, identification, Trustworthiness, Value, Image

b. Dependent Variable: Customer Loyality

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45,596	5	9,119	22,543	,000[a]
	Residual	38,024	94	,405		
	Total	83,620	99			

a. Predictors: (Constant), Performance, identification, Trustworthiness, Value, Image

b. Dependent Variable: Customer Loyality

Coefficients[a]

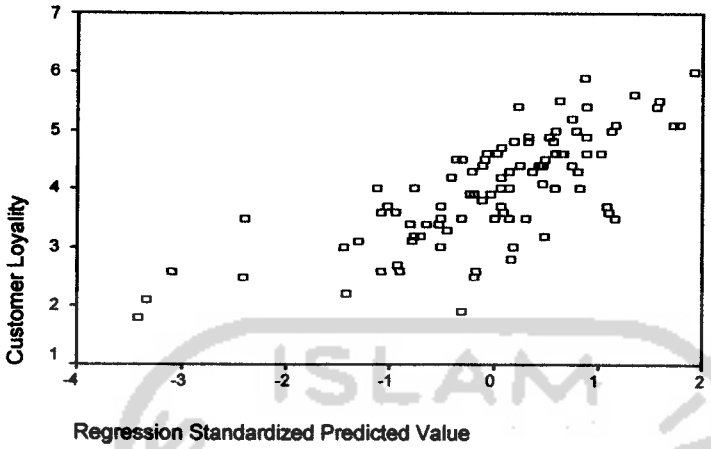
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,127	,430		-,295	,769		
	identification	,177	,111	,166	1,598	,113	,446	2,241
	Trustworthiness	-,079	,105	-,074	-,755	,452	,498	2,007
	Image	,165	,129	,145	1,276	,205	,375	2,665
	Value	,518	,117	,467	4,427	,000	,435	2,299
	Performance	,132	,116	,124	1,137	,259	,408	2,449

a. Dependent Variable: Customer Loyality

Charts

Scatterplot

Dependent Variable: Customer Loyality



Regression INTEL

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Performance, Image, Trustworthiness, identification, Value[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Customer Loyality

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,786[a]	,617	,585	,56802	2,225

a. Predictors: (Constant), Performance, Image, Trustworthiness, identification, Value

b. Dependent Variable: Customer Loyality

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,224	5	6,245	19,355	,000[a]
	Residual	19,359	60	,323		
	Total	50,583	65			

a. Predictors: (Constant), Performance, Image, Trustworthiness, identification, Value

b. Dependent Variable: Customer Loyality

Coefficients[a]

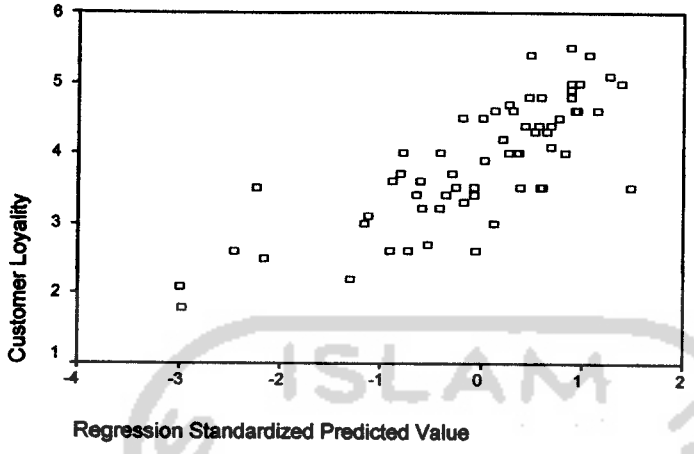
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,069	,426		,161	,873		
	identification	,133	,126	,136	1,057	,295	,387	2,581
	Trustworthiness	-,110	,114	-,119	-,964	,339	,421	2,374
	Image	,084	,137	,084	,611	,543	,337	2,971
	Value	,640	,144	,591	4,455	,000	,362	2,761
	Performance	,149	,130	,152	1,146	,256	,361	2,768

a. Dependent Variable: Customer Loyality

Charts

Scatterplot

Dependent Variable: Customer Loyality



Regression AMD

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Performance, identification, Trustworthiness, Value, Image[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Customer Loyality

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,684[a]	,468	,373	,76476	2,029

a. Predictors: (Constant), Performance, identification, Trustworthiness, Value, Image

b. Dependent Variable: Customer Loyality

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14,389	5	2,878	4,920	,002[a]
	Residual	16,376	28	,585		
	Total	30,765	33			

a. Predictors: (Constant), Performance, identification, Trustworthiness, Value, Image

b. Dependent Variable: Customer Loyality

Coefficients[a]

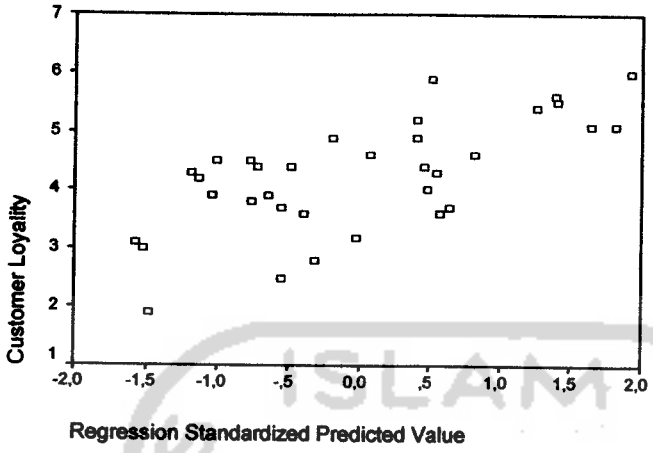
Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-1,795	1,321		-1,359	,185		
	identification	,309	,241	,236	1,286	,209	,565	1,769
	Trustworthiness	-,120	,248	-,083	-,485	,631	,653	1,531
	Image	,342	,319	,214	1,073	,292	,479	2,087
	Value	,569	,270	,379	2,106	,044	,586	1,707
	Performance	,118	,259	,093	,458	,651	,461	2,167

a. Dependent Variable: Customer Loyality

Charts

Scatterplot

Dependent Variable: Customer Loyality



Simple Linier Regression AMD

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Identification[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.479[a]	.229	.205	.86075

a. Predictors: (Constant), Identification

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.057	1	7.057	9.524	.004[a]
	Residual	23.708	32	.741		
	Total	30.765	33			

a. Predictors: (Constant), Identification

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.146	1.017		1.127	.268
	Identification	.628	.204	.479	3.086	.004

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Trustworthiness[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.291[a]	.085	.056	.93806

a. Predictors: (Constant), Trustworthiness

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.606	1	2.606	2.962	.095[a]
	Residual	28.159	32	.880		
	Total	30.765	33			

a. Predictors: (Constant), Trustworthiness

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.310	1.139		2.028	.051
	Trustworthiness	.424	.246	.291	1.721	.095

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Image[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.547[a]	.299	.277	.82097

a. Predictors: (Constant), Image

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.198	1	9.198	13.646	.001[a]
	Residual	21.567	32	.674		
	Total	30.765	33			

a. Predictors: (Constant), Image

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.147	1.199		-.123	.903
	Image	.876	.237	.547	3.694	.001

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Value[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585[a]	.342	.322	.79517

a. Predictors: (Constant), Value

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.532	1	10.532	16.656	.000[a]
	Residual	20.233	32	.632		
	Total	30.765	33			

a. Predictors: (Constant), Value

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.052	1.063		-.049	.961
	Value	.878	.215	.585	4.081	.000

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Performance[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431[a]	.185	.160	.88498

a. Predictors: (Constant), Performance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.703	1	5.703	7.281	.011[a]
	Residual	25.062	32	.783		
	Total	30.765	33			

a. Predictors: (Constant), Performance

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.654	.974		1.699	.099
	Performance	.549	.203	.431	2.698	.011

a. Dependent Variable: Loyalty

Simple Linier Regression Intel

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Identification[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597[a]	.356	.346	.71328

a. Predictors: (Constant), Identification

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.022	1	18.022	35.424	.000[a]
	Residual	32.561	64	.509		
	Total	50.583	65			

a. Predictors: (Constant), Identification

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.261	.457		2.759	.008
	Identification	.587	.099	.597	5.952	.000

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Trustworthiness[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.504[a]	.254	.243	.76764

a. Predictors: (Constant), Trustworthiness

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.869	1	12.869	21.839	.000[a]
	Residual	37.714	64	.589		
	Total	50.583	65			

a. Predictors: (Constant), Trustworthiness

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.856	.454		4.088	.000
	Trustworthiness	.469	.100	.504	4.673	.000

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Image[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.639[a]	.408	.399	.68382

a. Predictors: (Constant), Image

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.657	1	20.657	44.175	.000[a]
	Residual	29.927	64	.468		
	Total	50.583	65			

a. Predictors: (Constant), Image

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.909	.463		1.965	.054
	Image	.637	.096	.639	6.646	.000

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Value[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.759[a]	.576	.570	.57858

a. Predictors: (Constant), Value

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.159	1	29.159	87.104	.000[a]
	Residual	21.424	64	.335		
	Total	50.583	65			

a. Predictors: (Constant), Value

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.480	.377		1.274	.207
	Value	.822	.088	.759	9.333	.000

a. Dependent Variable: Loyalty

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Performance[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Loyalty

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.614[a]	.377	.368	.70145

a. Predictors: (Constant), Performance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.093	1	19.093	38.805	.000[a]
	Residual	31.490	64	.492		
	Total	50.583	65			

a. Predictors: (Constant), Performance

b. Dependent Variable: Loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.274	.435		2.925	.005
	Performance	.599	.096	.614	6.229	.000

a. Dependent Variable: Loyalty