

# Effect of Product Quality Perception, Trust, and Brand Image on Generic Drug Buying Decision and Consumer Satisfaction of Hospital Patients in East Kalimantan

Gordius Ago<sup>1\*</sup> Suharno<sup>2</sup> Sri Mintarti<sup>2</sup> Sugeng Hariyadi<sup>2</sup>

1.Student of Doctoral Program in Management, Mulawarman University, Samarinda

2.Lecturer of the Doctoral Program in Management, Mulawarman University, Samarinda

\* E-mail of corresponding author: gordius\_ago@yahoo.co.id

## Abstract

The objective of this research is to analyze the effect of product quality perception, trust, and brand image on generic drug buying decision and consumer satisfaction of hospital patients in East Kalimantan. This research used the explanatory observational research design with the cross-sectional study. Its population was all of the general patients who did not use the facility of the Social Security Provider (BPJS) for Health or National Health Insurance/Local Health Insurance. The samples of research consisted of 260 respondents. They were taken by using the accidental random sampling technique. The data of research were analyzed based on the Structural Equation Modeling (SEM) using AMOS. The results of research are as follows: (1) the product quality perception has a significant effect but is proved to be not valid on the generic drug buying decision of the hospital clients in East Kalimantan; (2) the consumer trust has a significant effect and is proved to be valid on the generic drug buying decision of the hospital clients in East Kalimantan; (3) the brand image has a significant effect and is proved to be valid on the generic drug buying decision of the hospital clients in East Kalimantan; (4) the product quality perception has a significant effect but is proven to be true on the generic drug consumer satisfaction of hospital clients in East Kalimantan; (5) the consumer trust has a significant effect and is proved to be valid on the generic drug consumer satisfaction of hospital clients in East Kalimantan; (6) the brand image has a significant effect but is proved not to be true on the generic drug consumer satisfaction of hospital clients in East Kalimantan; and (7) the buying decision has a significant effect and is proved to be valid on the generic drug of hospital clients in East Kalimantan.

**Keywords:** Product quality perception, trust, brand image, buying decision, customer satisfaction, and generic drug

## 1. Introduction

The prices of drugs in Indonesia through the policy of drug pricing by the Government of the Republic of Indonesia are still perceived relatively more expensive than those of drugs in other several countries due to its policy, which implements a free market economy on drug prices, and the government's lack of supervision on the generic drug use. Indonesian government already issued policies on generic drugs in 1989 through the enactment of Regulation of the Minister of Health Number: 05417/A/SK/XII/1989 regarding the Procedure of Generic Drug Registration, which aims at ensuring the truth of efficacy, safety, and quality of the circulating drugs and Regulation of the Minister of Health Number 085/MENKES/PER/1989 regarding Duty to Write Drug Prescription and/or to Use Generic Drugs in State Health Service Facilities. However, the latter was revoked and substituted with Regulation of the Minister of Health Number: HK.02.02 /MENKES/068/I/2010 regarding Duty to Use Generic Drugs in State Health Service Facilities.

Furthermore, the government also issued a policy on the generic drug pricing through Decision of the Minister of Health Number: 92/ MENKES/SK/II/2012 on Final Retail Price (FRP) of generic drugs. This FRP becomes the highest selling price reference of generic drugs in pharmacies, hospitals, and other health care facilities in addition to Decision of the Minister of Health on the guidelines for the development and supervision of generic drugs Number HK.03.01/MENKES/159/I/2010 regarding the Development and Supervision of Generic Drug Use in Governmental Health Service Facilities. Those policies are intended to become guidelines for the Central Government and Local Governments to compulsorily provide generic drugs in their health service facilities based on the prepared formulary and to refer it to the National Essential Medicine List (NEML).

The classification of drugs based on pharmaceutical laws and regulations through Regulation of the Minister of Health Number 924/MENKES /Per/X/1993 regarding Mandatory Drugs of Pharmacy are narcotic Drugs (O List), Psychotropic Drugs (Limited Hard Drugs), Hard Drugs (G List), Mandatory Drug of Pharmacy (G List No. 1 and G No. 2) and OTC (OTC / Over The Counter).

The phenomenon that occurs is that hospital patients have not recognized the differences between generic drugs and generic products bearing, branded generic drugs (registered branded products), and patented drugs (original products). The patients never raise any questions on the medicines prescribed and their possible prices. Most of them do not know that generic drugs have qualities, efficacies, purities, and stabilities that are

similar to the patented ones as they have the same active ingredients. The difference is found only on the packaging and the names of companies that manufacture them.

To increase the success in generic drug use, the participations of all parties including government, private, and public health officials are required. The government has a role to make regulations on generic drugs and to disseminate them systematically so that the patient can understand and know the correct information about the benefits of generic drugs. In addition, the government also has a role to monitor the generic drugs so that their quality can be maintained.

The private sector as a drug manufacturer has a role in making the distribution and the availability of drugs in various places. The limit of generic drugs would be a serious problem and the uneven distribution of generic drugs also may inhibit the patients to get them. In addition, drug manufacturers shall guarantee that the quality of generic drugs is the same as that of the patented ones so that the assumption or perception that the generic drugs are not as efficacious and safe as the patented ones can be eliminated. Increasing the quality of generic drugs will affect the generic drug purchase interest and decision.

Kotler and Keller (2009: 166) argue that there are three factors that influence the buying decision, namely: cultural factor, social factor, and personal factor. The cultural factor has a broad and deep effect on taking a buying decision of a product. In relation to this study, the generic drug buying decision is much more influenced by the cultural, social, and personal factors in addition to psychological one. The psychological factor is perceived as an important factor in relation with motivation, perception, learning, and memory. The perception in this research is focused on the product quality of generic drugs as well as the patients' trust on generic drugs. The patients' perception will affect the generic drug buying decision. If the patients have a positive perception on the generic drugs, then most likely the patients will buy them. Conversely, if the perception raised is negative, then the patients will choose the patented ones. In addition, the social factor is much more influenced by the reference group, in this case the health workers. Health workers such as doctors, pharmacists and nurses have an important role in influencing patients to use generic drugs or patented drugs. Patients will bear a high level of trust on the generic drugs when doctors and pharmacists provide recommendations on the generic drugs.

Other factor that affects the buying decision is brand image. According to the American Marketing Association as stated by Kotler and Keller (2009: 258), brand is defined as a sign, a symbol, a design, or a combination of all of them which are intended to identify products or services of a seller or group of sellers and to differentiate them from goods or services of a competitor. In addition to differentiating one product from another product, the brand also provides benefits to consumers to help them to identify the benefits offered and the quality of the product. Consumers trust a product with a particular brand more than the one without any brand despite the same benefits being offered (Ferrinadewi, 2008: 135).

After the patients do a purchase and feel the benefits of the products bought, the next process is a matter of satisfaction received from these products. Kotler and Keller (2009: 139) claim that consumer satisfaction is one's feeling of happiness or disappointment, which comes from the comparison between his or her impression on the performance of a product and his or her expectation. The satisfaction in relation to the drug use may be classified into two categories, namely: functional satisfaction and psychological satisfaction. The former is a satisfaction derived from the function or the use of a product, such as: by taking medicine, someone gets recovered from his or her illness, and the latter is a satisfaction derived from intangible attributes such as feeling happy because drugs bought are inexpensive, easy to consume, and easy to obtain.

The patients' satisfaction will be formed when they have benefited from the generic drugs. At least, it will be influenced by the product quality perception, trust, and brand image of the generic drugs. The patients who have used the drugs will have both material and immaterial benefits. In the former, the patients will have savings from the purchase of drugs. In the latter, the patients receive the same quality of generic drugs as the patented drugs.

The patients who get benefits more from taking the generic drugs will be satisfied and will do repurchase on such drugs. The satisfaction of the patients who take the generic drugs will affect their image in the future. In addition, the patients who are satisfied with the generic drugs will give a positive perception on the generic drugs.

Researches related to the factors that affect the buying decision and the customer satisfaction have been carried out by previous researchers. The researches conducted by Chelliah and Kwon (2011), Tariq (2013), Jaafar and Pan (2012), Musdiana et al., (2010), Nurafifah et al., (2012), Jacky and Tumbuan (2014), Nazia et al., (2011), examined the effect of product quality perception on the purchase, and their results indicate that there is a significant effect of the product quality perception on the buying decision. The researches conducted by Kim (2008), Dewanti, et al (2010), Seiedeh et al., (2012) examined the effect of consumer trust on the buying decision, and their results show that there is a significant effect of the consumer trust on the buying decision. The researches conducted by Sondoh, et al., (2007), Ruslim and Andrew (2012), Tariq (2013), Lin (2007), Jacky and Tumbuan (2014), Hsin et al., (2008), examined the effect of brand image on the buying decision, and their results suggest that there is a significant effect of the brand image on the buying decision.

The researches on the factors that affect the customer satisfaction, were also done by Satit et al., (2012), Haemoun (1999), Hafizah (2012), Endang and Maurine (2009). The results of their researches indicate that there is significant effect of the product quality perception on the customer satisfaction. The results of researches conducted by Singh and Sirdeshmukh (2000), Raoul (2005), Lin and Xu (2011), Hafizah (2012), Endang and Maurine (2009), show that there is a significant effect of the consumer trust on the customer satisfaction. The results of researches conducted by Tu et al., (2013), Satendra and Singh (2012), Fransisca et al., (2012) indicate that there is a significant effect of the brand image on the consumer satisfaction. Finally, the results of researches conducted by Bowen and Chen, Sumarwan (2003), show that there is a significant effect of the buying decision on the customer satisfaction.

The above researches show that the variables of product quality perception, trust, and brand image have an effect on the buying decision and consumer satisfaction. However, there are gaps among the results of research including those of researches conducted by Dewanti Retno, Ishak Ismail, Muhammad Jalu Tasrihanto Prabowo Aditya (2010). Some of the researches indicate that the product quality perception, the trust, and the brand image do not have any significant effect on the buying decision and customer satisfaction. The brand image does not significantly and positively affect the buying decision. The result of research conducted by Sudomo (2013) shows that partially the brand awareness and loyalty have a positive and significant effect on the buying decision, while the variables of brand association and quality perception does not have any effect on the buying decision. The results of researches conducted by Phillip K. Hellier, Gus M. Geursen, Rodney A. Carr, John A. Rickard (20013) show that although perceived quality does not directly affect the customer satisfaction, it does so indirectly via customer equity and value perceptions.

Thus, this research is expected to provide something new compared to previous ones where the variable of trust in the previous research only used three dimensions, namely: attribute- object trust, attribute-benefit trust, and object-benefit trust (Mowen, 2002). In this research, the dimension of trust is added with the patients' psychological factors, namely: motivation, perception, learning and memory. It believed that the psychological factors have an important role in creating the patients' trust on a product so that patients repurchase it.

Based on the above descriptions, therefore, the authors are interested in studying more about the drug buying decision and consumer satisfaction of hospital patients in East Kalimantan. This research is entitled "Effect of Product Quality Perception, Trust, and Brand Image on Generic Drug Buying decision and Consumer Satisfaction of Hospital Patients in East Kalimantan".

The objectives of this research are to analyze and explain:

1. the effect of product quality perception on the generic drug buying decision of the hospital patients in East Kalimantan;
2. the effect of consumer trust on the generic drug buying decision of the hospital patients in East Kalimantan;
3. the effect of brand image on the generic drug buying decision of the hospital patients in East Kalimantan;
4. the effect of product quality perception on the generic drug consumer satisfaction of the hospital patients in East Kalimantan.
5. the effect of consumer trust on the generic drug consumer satisfaction of the hospital patients in East Kalimantan;
6. the effect of brand image on the generic drug consumer satisfaction of the hospital patients in East Kalimantan; and
7. the effect of buying decision on the generic drug consumer satisfaction of the hospital patients in East Kalimantan.

## 2. Literature Review

### 2.1 Perceived Quality

Kotler (2002: 49) defines product quality as the overall natures and characteristics of a product, which affect the ability to satisfy the tangible and intangible needs.

Garvin (1987), as quoted by Tjijtono and Chandra (2005: 130), claims that there are eight dimensions of products that can be used to analyze the characteristics of the quality of goods:

1. **Performance:** Performance refers to a product's primary operating characteristics. This dimension of quality involves measurable attributes; brands can usually be ranked objectively on individual aspects of performance.
2. **Features:** Features are additional characteristics that enhance the appeal of the product or service to the user.
3. **Reliability:** Reliability is the likelihood that a product will not fail within a specific time period. This is a key element for users who need the product to work without failure.
4. **Conformance:** Conformance is the precision with which the product or service meets the specified standards.
5. **Durability:** Durability measures the length of a product's life. When the product can be repaired,

- estimating durability is more complicated. The item will be used until it is no longer economical to operate. This happens when the repair rate and the associated costs increase significantly.
6. **Serviceability:** Serviceability is the speed with which the product can be put into service when it breaks down, as well as the competency and behavior of the serviceperson.
  7. **Aesthetic:** Aesthetic is the subjective dimension indicating the kind of response a user has to a product. It represents the individual's personal preference.
  8. **Perceived quality:** Perceived quality is the quality attributed to a good or service based on indirect measures

According to Kotler and Keller (2009b: 9-10), the product perception can be measured by:

1. **Performance Quality:** Most of products are set at one of the four levels of performance: low, average, high, or superior. The performance quality is the level where the main characteristics of the product operate. The quality becomes an important dimension of differentiation when the manufacturers implement a model of value and provide a higher quality with a lower price.
2. **Conformance Quality:** Buyers expect the products to have high quality conformity, i.e. the degree where all units are produced identically or meet the promised specifications.
3. **Durability:** Endurance is a measure of the operating life expectancy of a product under regular or stressful conditions. The buyers will usually pay more for a product that has a good reputation.
4. **Reliability:** Reliability is a measure of the probability that the product will not be malfunctioning or failed within a specific time period. The buyer will usually pay more for a product that is more reliable.

## 2.2 Trust

Moorman, Deshpande, and Zaltman (1993:82) in Morgan and Hunt (1994:23) claim that "Trust is defined as a willingness to rely on an exchange partner in whom one has trust". According to Rotter's classic view (1967: 651) in Morgan and Hunt (1994:23), trust is defined as "a generalized expectancy held by an individual that the world of another ... can be relied on." Both of these definitions show the importance of trust. The literature on trust suggests that trust on the part of the trusting party results from the firm belief that the trustworthy party is reliable and has high integrity, which is associated with such qualities as consistent, competent, honest, fair, responsible, helpful, and benevolent (Altman and Taylor 1973; Dwyer and La Gace 1986; Larzel-Ere and Huston 1980; Rotter 1971) in Morgan and Hunt (1994:23). Anderson and Narus (1990:45) focus on the perceived outcomes of trust when they define it as "the firm's belief that another company will perform action that will result in positive outcomes for the firm as well as will not take unexpected actions that result in negative outcomes (I Morgan and Hunt, 1994:23).

Bromiley and Cummings (1995) claim that trust is expectation that another individual or group will: (1) have good faith and make efforts to behave in accordance with any commitments both explicitly or implicitly, (2) be honest in whatever negotiations preceding those commitments, and (3) not take excessive advantage of others even when the opportunity (to renegotiate) is available.

The consumer trust on a product that the product has an attribute is the result of consumer knowledge. According to Mowen and Minor (2002:312), consumer trust is consumer knowledge about an object, its attributes, and its benefits. The knowledge is useful for communicating a product and its attributes to consumers. The trust which is said to represent the association that consumers make among the object, its attributes, and its benefits, is based on the cognitive learning process, namely:

1. **Attribute-object trust:** Knowledge about the object has a special attribute called attribute-object trust. The attribute-object trust connects an attribute to an object, such as a person, an article, or a service.
2. **Attribute-benefit trust:** Attribute-benefit trust is the consumer's perception on how much a particular attribute produces or provides certain benefits. One looks for products and services that will solve his or her problems and meet his or her needs. In other words, they have attributes that will provide recognizable benefits.
3. **Object-benefit trust:** Object-benefit trust is the consumer's perception on how much a product, a person, or a certain service will give certain benefits.

Besides the three attributes related to trust, in this research one dimension to measure consumer trust on a product i.e. psychological process is added. Psychological process is a process in decision-making and final decision of purchase (Kotler and Keller, 2009: 176). The psychological factor includes motivation, perception, learning and memory. The following are explanations of each indicator:

### 1. Motivation

There are three well-known motivational theories used to analyze consumer behavior, namely: Freud theory, Maslow theory, and Herzberg theory. The three theories are essentially similar in fulfillment, where some needs are biogenic (these needs arise from the circumstances of psychological distress such as hunger, thirst and discomfort). Another requirement is psychogenic that is the needs which arise from the circumstances of



psychological distress such as the need for recognition, appreciation and sense of belonging. In this research, motivation indicators are measured based on the biogenic and psychogenic needs, namely: a sense of comfort after using generic drugs and cheap generic drug prices.

## 2. Perception

Perception is the process where we select, organize and interpret information inputs to create a meaningful picture of the world. Perception does not only depend on the physical stimulation, but also the relation of stimulation to the area of the surrounding stimuli and conditions within each of us. In marketing, perception is more important than reality because it affects the actual behavior of consumers. People may have different perceptions on the same object because of the three processes of understanding, namely: selective attention, selective distortion and selective retention (Kotler and Keller, 2009: 179).

## 3. Learning

Learning encourages changes in our behavior arising from experiences. Learning theorists believe that learning is produced through the interaction of encouragement, stimulation, sign, response and reinforcement. Some researchers prefer more active and cognitive approaches when learning depends on the conclusions or interpretations made by consumers about the outcome (whether the consumer experience is unpleasant due to poor product or the consumer is failed due to external causes) (Kotler and Keller, 2009: 181).

## 4. Memory

Memory is a very constructive process because we do not remember the information and incident completely and accurately. Consumers can remember the experience with a brand differently from the actual facts as the result of the intervention of other factors or events (Kotler and Keller, 2009: 182).

### 2.3 Brand Image

Grewal, Khirshnan, Baker, and Borin (1998 in Nan-Hong Lin, 2007:122) claim that the better a brand image is, the more recognition consumers give to its product quality. Rao and Monroe (1988, in Nan-Hong Lin, 2007:122) state that a brand with a more positive image does have the effect of lowering consumers' product perception risk and increasing positive feedback from consumers. Therefore, consumers generally believe that they can make a satisfactory purchase by choosing well-known brands and also lower any purchase risks by doing so.

Kertajaya (2005: 6) argues claims that "Brand image is the highlights of all associations related to an existing brand in the minds of consumers". Meanwhile, Setiadi (2003: 180) argues that brand image is a representation of the overall perception of the brand, and it is formed from information and past experience of this brand. Brand image is associated with attitudes in the form of beliefs and preference toward a brand. Consumers, who have a positive image of the brand, will be more likely to make a purchase.

According to Aaker (2000) in Ruslim and Andrew (2012: 35), the following are the factors that become the benchmark of brand image:

1. **Product attributes:** A brand can cause or bring certain attributes to the goods or services in consumers' mind which remind them of the characteristics of the brand.
2. **Consumer benefit:** A brand shall be valuable and beneficial of its own when consumers buy and consume the product. Consumer benefits consist of functional benefit, emotional benefit, and self-expressive benefit. The first benefit is a series of benefits gained by the consumers when the product can perform its main function. The second benefit is a series of benefits gained by consumers because the product provides or brings positive feelings to consumers. The last benefit is a series of benefits gained by the consumers when a brand is considered to represent the expression of a consumer.
3. **Brand personality:** Brand personality is defined as a brand that has a set of personal characters that will be associated by consumers to a particular brand.
4. **User imagery:** User imagery is defined as a set of human characteristics gathered in an association with typical or characteristic of consumers who use or consume the brand.
5. **Organizational association:** Consumers often connect products purchased with the credibility of the product manufacturer. This will affect the perception of goods or services produced by the company.
6. **Brand customer relationship:** A brand shall be able to create a relationship with customers. This can be measured by seven dimensions: a) Behavioral interdependence: Consumer and product brands are interdependent. Consumer behavior has an important role in relationship with the brand. b) Personal commitment: The consumers have a personal commitment to brands as found in the consumers' mind on the brands. c) Love and passion: The relationship between a brand and its consumers is based on love feelings and desire. d) Nostalgic connection: The brand and its consumers have relationship that is nostalgic for consumers when looking at the product. e) Self-concept connection: Brand relationship with consumers is for consumer self-concept of the brand he or sees. f) Intimacy: The relationship level with the brand is based on the relationship of intimacy. g) Partner Quality: Consumer relationships with brands are described as a friend and a partner.

## 2.4 Buying Decision

Kotler and Armstrong (2006: 137) argue that the consumer buying decision process is a systematic way of looking at how a consumer makes the decision to purchase a product (any product) in a product category. The consumer buying decision process consists of five steps, namely: problem recognition, information search, evaluation of alternatives, purchase and post purchase.

Fishbein and Ajzen (1975, in Nan-Hong Lin, 2007:124) argue that purchase intention means a subjective inclination consumers have toward a certain product, and has been proven to be a key factor to predict consumer behavior. The EKB model, developed by Engel, Kollat and Blackwell (1984, Nan-Hong Lin, 2007:124), is a process used to evaluate consumers' decision making. The model stresses that consumer behavior is a continuing process, including recognition of a problem, information gathering, solution evaluation, and decision making. The process is also affected by both internal and external factors like information input, information process, general motives, environment, etc. Among these factors, information gathering and environmental stimulation are two crucial influential factors in the final decision making.

Kotler and Keller (2009: 185) argue that consumer buying decision process consists of five (5) sections:

### 1. Problem recognition

The process begins when a buyer recognizes the existence of a problem or a need, which is triggered by internal or external stimuli. Marketers must identify the specific circumstances that trigger specific need by gathering information from consumers, and then develop a marketing strategy which activates the interest of consumers.

### 2. Information search

Consumers often look for limited amount information. Consumer sources of information are classified into four groups, namely:

- a. Personal sources: family, friends, neighbors, acquaintances.
- b. Commercial sources: advertising, sales representatives, distributors, packaging, displays in stores.
- c. Public sources: mass media, organizational determinants, consumer ratings.
- d. Experience Sources: handling, assessment, and product use.

### 3. Alternative evaluation.

In this case consumers will go through several stages / processes:

- a. Consumers will try to satisfy their needs;
- b. Consumers are looking for some specific advantages of the product; and
- c. Consumers see will see each product as a collection of attributes with different ability to generate profits in order to satisfy their needs.

### 4. Buying decision

In the evaluation phase, consumers form brand preference among the collection of choices. In this case the consumers subdivide their decisions into five parts, namely: brand, dealer, quality, timing, and payment method.

### 5. Post purchase behavior

After making a purchase, consumers will experience a certain level of satisfaction or dissatisfaction. Consumers, who experience a mismatch, will look for things about other brands and find other information that supports their decision.

## 2.5 Customer Satisfaction

Kotler (2005) defines satisfaction as "a person's feelings of pleasure or disappointment resulting from comparing a product perceived performance (or outcome) in relation to his or her expectations". Meanwhile, Hansemark and Albinsson (2004) claim that "satisfaction is an overall customer attitude on a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire". Tse and Wilson (1988) define satisfaction as the evaluation of perceived discrepancy between prior expectations and the actual performance of the product.

This study uses the theory of Mullins and Orville and that of Irawan, which reflects customer satisfaction measurement model based on the Indonesian Customer Satisfaction Award (ICSA), namely:

1. Satisfaction toward product or service quality
2. Satisfaction toward price relative to the quality offered
3. The perception that the brand being used is in overall the best when compared to others
4. Consumers' expectation on the brand ability to fulfill the customers' expectation in the future.

## Conceptual Framework

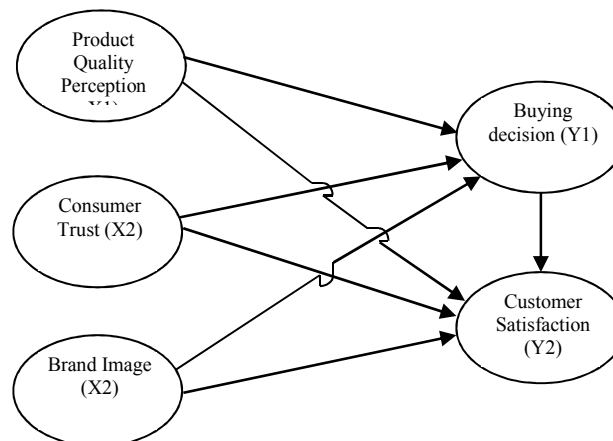


Figure 1: Framework of Inter-variable Relationship

## Hypothesis

The hypotheses of research are formulated as follows:

1. Product quality perception has a significant effect on generic drug buying decision of hospital patients in East Kalimantan.
2. Consumer trust has a significant effect on generic drug buying decision of hospital patients in East Kalimantan.
3. Brand image has a significant effect on generic drug buying decision of hospital patients in East Kalimantan.
4. Product quality perception has a significant effect on generic drug customer satisfaction of hospital patients in East Kalimantan.
5. Consumer trust has a significant effect on generic drug customer satisfaction of hospital patients in East Kalimantan.
6. Brand image has a significant effect on generic drug customer satisfaction of hospital patients in East Kalimantan.
7. Buying decision has a significant effect on generic drug customer satisfaction of hospital patients in East Kalimantan.

## 3. Research Method

The research used the explanatory observational survey research design with the cross-sectional study. It was conducted to the patients in four regions and hospitals representing the province of East Kalimantan, namely: A.Wahab Sjahranie Local General Hospital of Samarinda, Dr. Kanujoso Djatiwibowo Local General Hospital of Balikpapan, A.M. Parikesit Local General Hospital of Kutai Kertanegara/Tenggarong, and Abdul Rival Local General Hospital of Tanjung Redep /Berau from January 2014 to October 2014.

The population of research was all of the general patients who did not use the facility of the Social Security Provider (BPJS) for Health or National Health Insurance/Local Health Insurance, but were familiar with generic drugs. The samples of research consisted of 260 respondents. They were taken by using the accidental random sampling technique. The data of research were analyzed based on the Structural Equation Modeling (SEM) using AMOS.

## Operational Definitions and Measurement of Variables

### 1. Drug quality perception (X1)

The indicator used to measure the drug quality perception referred to the theory of Garvin (1987) as quoted by Tjiptono and Chandra (2005: 130), consisting of eight dimensions of product:

- a. Performance
- b. Features
- c. Reliability
- d. Conformance
- e. Durability
- f. Serviceability
- g. Aesthetics
- h. Perceived Quality

### 2. Trust (X2)

The consumer trust was measured based on the theory of Mowen (2002: 312), consisting of three dimensions

namely:

- a. Attribute-object trust
- b. Attribute-benefit trust
- c. Object-benefit trust

3. Brand image (X3)

The brand image was measured based on the theory of Aaker (2000) as follows:

- a. Product Attributes
- b. Consumer Benefit
- c. Brand Personality
- d. User Imagery
- e. Organizational Association
- f. Brand-Customer Relationship

4. Buying Decision (Y1)

The Buying decision was measured based on the theory of Kotler and Keller (2009: 185), consisting of five dimensions, namely:

- a. Problem recognition
- b. Information search
- c. Evaluation of alternatives
- d. Buying decision
- e. Post-purchase behavior

5. Customer satisfaction (Y2)

The customer satisfaction was measured based on the theory of Mullins and Orville and that of Irawan, which reflects customer satisfaction measurement model based on Indonesian Customer Satisfaction Award (ICSA), consisting of three dimensions, namely:

- a. Satisfaction toward product or service quality.
- b. Satisfaction toward price relative to the quality offered
- c. The perception that the brand being used is in overall the best when compared to others.

#### 4. Research Result

##### 4.1 General Description of Respondents

Referring to the claim of Sugiono (2012: 17), of 20,000 respondents, only 267 respondents were involved in this research. They were the patients who did not use the facility of the Social Security Provider (BPJS) for Health or National Health Insurance/Local Health Insurance, but were familiar with generic drugs.

Based on the results of the observation and questionnaire distributed to 267 patients in the four regions and hospitals in East Kalimantan, only 260 patients were eligible as the respondents for seven of them did not fill the questionnaire completely and correctly. The seven patients were 2 from Local General Hospital of Samarinda City, 1 from Local General Hospital of Balikpapan City, 2 from Local General Hospital of Kutai Kertanegara/Tenggarong Regency, and 2 from Local General Hospital of Tanjung Redep/Berau Regency.

Of 260 respondents, 90 were from A.Wahab Sjahranie Local General Hospital of Samarinda, 70 were from Dr. Kanujoso Djatiwibowo Local General Hospital of Balikpapan, 77 were from A.M. Parikesit Local General Hospital of Kutai Kertanegara/Tenggarong, and 23 were Abdul Rivai Local General Hospital of Tanjung Redep /Berau.

Table 1: Total number of respondents

No.	Hospital City/Regency	Total number of hospital patients	Total number of general patients without the BPJS for Health and Public Health Insurance	Total number of patients/Respondents
1	A.Wahab Sjahranie Local General Hospital of Samarinda	264.139	6.896	90
2	Dr.Kanujoso Djatiwibowo Local General Hospital of Balikpapan	132.388	5.309	70
3	A.M.Parikesit Local General Hospital of Kutai Kertanegara/Tenggarong	108.188	5911	77
4	Abdul Rivai Local General Hospital of Tanjung Redep/Berau	46.312	1884	23
		Total Number	20.000	260

Sources: Website: rumah-sakit.findthebest.co.id, and the total number of patients/ respondents processed by authors, 2015.



The general characteristics of the respondents are presented in the following table.

Table 2: Characteristics of respondents

No	Characteristics of Respondents	Total Number	(%)
1	Age (Years)		
	• ≤ 18-25	52	20.0
	• 26 – 30	70	26.9
	• 31 – 35	55	21.2
	• 36 – 40	23	8.8
	• 41 – 45	36	1.8
	• > 45	24	9.2
	Total Number	260	100
2	Gender		
	• Male	127	48.8
	• Female	133	51.2
	Total Number	260	100
3	Education Level		
	• Primary School	24	9.2
	• Junior Secondary School	19	18.8
	• Senior Secondary School	94	36.2
	• Diplomas 1-3	39	15.0
	• Bachelor Degree	52	20.0
	• Graduate and Postgraduate (S2-S3)	2	0.8
	Total Number	260	100
4	Occupation		
	• Civil servant/Soldier/Police Officer	19	7.3
	• Private employee	139	53.1
	• Foreign Employee	1	0.4
	• Self-employed	102	39.2
	Total Number	260	100
5	Monthly Income (million)		
	• 1 – 2.5	86	33.1
	• > 2.5 – 4	118	45.4
	• > 4 – 5.5	36	13.8
	• > 5.5 – 7	11	4.2
	• > 7 – 8.5	6	2.3
	• > 8.5	3	1.2
	Total Number	260	100
6	Marriage Status		
	• Marriage	167	64.2
	• Unmarried	71	27.3
	• Widow/Widower	112	8.5
	Total Number	260	100
7	Patient's status at hospital		
	• Hospitalized	112	43.1
	• Ambulatory	148	56.9
	Total Number	260	100
8	User of generic drugs		
	• Yes	260	100
	• No	-	-
	Total Number	260	100
9	Know the generic drugs from:		
	• Doctor	153	58.8
	• Pharmacist	36	13.8
	• Nurse	30	11.5
	• Pharmaceutical staff	22	8.5
	• Etc. (Relatives, Friends, others.)	19	7.3
	Total Number	260	100

Sources: Primary data processed by the authors, 2014.

#### 4.2 Structural Equation Model (SEM)

The result of data processing with Full model of SEM is presented in Figure 2 below:

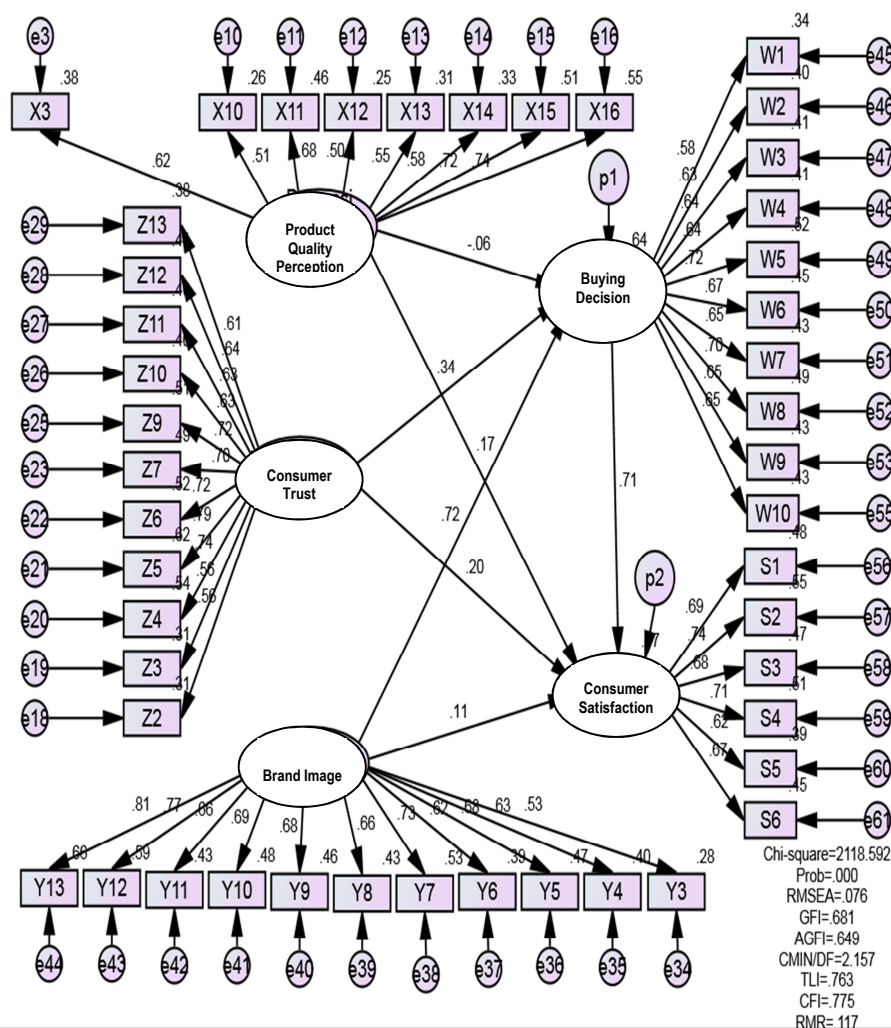


Figure 2: Structural Equation Model

The result of Goodness of Fit Index is presented in the following table:

Table 3: Structural Equation Model Conformance Test Index

Goodness of Fit index	Result of Analysis	Evaluation of Model
$\chi^2$ - chi square	2118.592	Marginal
Sig.	0.000	Marginal
RMSAE	0.076	Accepted
RMR	0.117	Accepted
GFI	0.681	Marginal
AGFI	0.649	Marginal
CMIN/ DF	2.157	Accepted
TLI	0.763	Marginal
CFI	0.775	Marginal

Sources: Processed data, 2014.

Based on Figure 2 and Table 3, SEM used to test the causal relationship between the variables in the model shows that the model is acceptable. The model conformance test shows that the model is acceptable because the value of goodness of fit index approaches the cut off value, meaning that test indicators are fulfilled.

##### 4.2.1 Effect between Variables

The direct effect analysis shows that the value of the direct effect of the drug quality perception ( $X_1$ ) on the buying decision ( $Y_1$ ) is -0.061; that of the direct effect of the consumer trust ( $X_2$ ) on the buying decision ( $Y_1$ ) is 0.340; that of the direct effect of the brand image ( $X_3$ ) on the buying decision ( $Y_1$ ) is 0.721; that of the direct effect of the drug quality perception ( $X_1$ ) on the consumer satisfaction ( $Y_2$ ) is 0.168; that of the direct effect of

the consumer trust ( $X_2$ ) on the consumer satisfaction ( $Y_2$ ) is 0.195; that of the direct effect of the brand image ( $X_3$ ) on the consumer satisfaction ( $Y_2$ ) is 0.108; and that of the direct effect of the buying decision ( $Y_1$ ) on the consumer satisfaction ( $Y_2$ ) is 0.706. In term of effect, thus, the buying decision has a more dominant effect on the customer satisfaction than the drug quality perception, the consumer trust, and the brand image.

Meanwhile, the indirect effect analysis shows that the value of the indirect effect of the drug quality perception ( $X_1$ ) on the customer satisfaction ( $Y_2$ ) through the buying decision ( $Y_1$ ) is -0.043; that of the indirect effect of the consumer trust ( $X_2$ ) on the customer satisfaction ( $Y_2$ ) through the buying decision ( $Y_1$ ) is 0.240; and that of the indirect effect of the brand image ( $X_3$ ) on the customer satisfaction ( $Y_2$ ) through the buying decision ( $Y_1$ ) is 0.509. Therefore, the brand image has a more dominant effect on the buying decision than the drug quality perception and the consumer trust.

The analysis of total effect (of various relationships) shows that the values of the total effect the drug quality perception ( $X_1$ ) on the buying decision ( $Y_1$ ) and the consumer satisfaction ( $Y_2$ ) are -0.061 and 0.125 respectively; those of the total effect of the consumer trust ( $X_2$ ) on the buying decision ( $Y_1$ ) and the consumer satisfaction ( $Y_2$ ) are 0.340 and 0.436 respectively; those of the total effect of the brand image ( $X_3$ ) on the buying decision ( $Y_1$ ) and the consumer satisfaction ( $Y_2$ ) are 0.721 and 0.617 respectively; and that of the total effect of the buying decision ( $Y_1$ ) on the consumer satisfaction ( $Y_2$ ) is 0.706.

#### 4.2.2 Hypothesis Testing

The confirmatory factor analysis and the structural equation modeling indicate that the specified model in this research is acceptable. Therefore, the proposed hypotheses of the research are tested. The result of the hypothesis test with the AMOS analysis is presented in the following table:

Table 3  
 Parameter Estimation of Regression Weights

			Estimation	C.R.	P	Information
Buying_Decision	<---	Product Quality Perception	-0.061	-1.051	0.293	Insignificant
Buying_Decision	<---	Consumer_Trust	0.340	4.686	0.000	Significant
Buying_Decision	<---	Brand_Image	0.721	7.337	0.000	Significant
Consumer_Satisfaction	<---	Product Quality Perception	0.168	2.934	0.003	Significant
Consumer_Satisfaction	<---	Consumer_Trust	0.195	2.852	0.004	Significant
Consumer_Satisfaction	<---	Brand_Image	0.108	1.129	0.259	Insignificant
Consumer_Satisfaction	<---	Buying_Decision	0.706	5.168	0.000	Significant

Source: processed data, 2014

#### Hypothesis Testing 1

The result of parameter estimation for the hypothesis testing of the effect of the product quality perception on the generic drug buying decision shows that the value of CR is -1.051 with the probability value of 0.293. The value is not eligible for H1 verification because its probability value is greater than 0.05 and the value of CR is smaller than 2.00. Therefore, Hypothesis 1 which states that product quality perception has a significant effect on generic drug buying decision of hospital patients in East Kalimantan is not verified, or Hypothesis 1 is rejected.

#### Hypothesis Testing 2

The result of parameter estimation for the hypothesis testing of the effect of the consumer trust on the generic drug buying decision shows that the value of CR is 4.686 with the probability value of 0.000. The value is eligible for H2 verification because its probability value is smaller than 0.05 and the value of CR is greater than 2.00. Therefore, Hypothesis 2 which states that consumer trust has a significant effect on generic drug buying decision of hospital patients in East Kalimantan is verified.

#### Hypothesis Testing 3

The result of parameter estimation for the hypothesis testing of the effect of the brand image on the generic drug buying decision shows that the value of CR is 7.337 with the probability value of 0.000. The value is eligible for H3 verification because its probability value is smaller than 0.05 and the value of CR is greater than 2.00. Therefore, Hypothesis 3 which states that brand image has a significant effect on generic drug buying decision of hospital patients in East Kalimantan is verified.

#### Hypothesis Testing 4

The result of parameter estimation for the hypothesis testing of the effect of the product quality perception on the generic drug consumer satisfaction of hospital patients shows that the value of CR is 2.934 with the probability value of 0.003. The value is eligible for H4 verification because its probability value is smaller than 0.05 and the value of CR is greater than 2.00. Therefore, Hypothesis 4 which states that product quality perception has a significant effect on generic drug consumer satisfaction of hospital patients in East

Kalimantan is verified.

#### Hypothesis Testing 5

The result of parameter estimation for the hypothesis testing of the effect of the consumer trust on the generic drug consumer satisfaction of hospital patients shows that the value of CR is 2.852 with the probability value of 0.004. The value is eligible for H5 verification because its probability value is smaller than 0.05 and the value of CR is greater than 2.00. Therefore, Hypothesis 4 which states that consumer trust has a significant effect on generic drug consumer satisfaction of hospital patients in East Kalimantan is verified.

#### Hypothesis Testing 6

The result of parameter estimation for the hypothesis testing of the effect of the brand image on the generic drug consumer satisfaction of hospital patients shows that the value of CR is 1.129 with the probability value of 0.259. The value is not eligible for H6 verification because its probability value is greater than 0.05 but the value of CR is smaller than 2.00. Therefore, Hypothesis 6 which states that brand image has a significant effect on generic drug consumer satisfaction of hospital patients in East Kalimantan is not verified or H6 is rejected.

#### Hypothesis Testing 7

The result of parameter estimation for the hypothesis testing of the effect of the buying decision on the generic drug consumer satisfaction of hospital patients shows that the value of CR is 5.168 with the probability value of 0.000. The value is eligible for H7 verification because its probability value is smaller than 0.05 and the value of CR is greater than 2.00. Therefore, Hypothesis 7 which states that buying decision has a significant effect on generic drug consumer satisfaction of hospital patients in East Kalimantan is verified.

## 5. Discussion

### 5.1 Effect of Product Quality Perception on Buying Decision

The result of parameter estimation for the hypothesis testing of the effect of the product quality perception on the generic drug buying decision shows that the value of CR is -1.051 with the probability of 0.293. This indicates that the product quality perception has a significant effect and is not proved to be true to affect the generic drug buying decision of hospital patients in East Kalimantan. Therefore, the patients' high or low generic drug quality perception will not affect the generic drug buying decision of hospital patients in East Kalimantan.

The result of statistical analysis supported with the descriptive elaboration shows that there is not any effect of the generic drug quality perception on the generic drug buying decision. This occurs because patients do not know and have less knowledge on the generic drugs. To date, many patients have less understanding on the existence and function of generic drugs as to get information on the generic drugs is still confusing. The source of information on the generic drugs cannot be accessed easily.

The lack of information on the generic drugs makes the patients less familiar with the generic drugs so that their generic drug perception has less positive effect on their generic drug buying decision.

In a certain condition, probably there are patients who have already consumed the generic drugs. Yet, they actually do not know that the drugs they take are generic ones. They have felt the positive use of the drugs, but they do not perceive that the drugs they take are generic ones. This phenomenon can happen because when the patients buy the drugs and consume them, they consider them as the common drugs due to the absence of information from doctors on the drugs.

The product quality perception is to affect the patients in determining their choices to use the generic drugs. The patients' decision to consume or buy drugs is much more affected by the doctors who diagnose their illness. The drugs recommended by doctors become the main references for the patients to buy them, either the generic drugs or the patented ones.

To conclude, the patients' generic drug quality perception has a significant effect but is proved to be not valid to affect the generic drug buying decision as the patients all this time are not given an opportunity to choose between the generic drugs and the patented drug. The existing phenomenon is that only doctors have the ability to perceive the drug quality in accordance with the patients' illness. Meanwhile, the patients shall merely do the doctors' instructions based on their diagnosis on the patients' illness.

This result of research supports that of Sudomo (2013), but contradicts those of and Kwon (2011), Tariq (2013), Jaafar and Pan (2012), Musdiana et al., (2010), Nurafifah et al., (2012), Jacky and Tumbuan (2014), Nazia et al., (2011) which show that the product quality has a positive and significant effect on the buying decision.

### 5.2 Effect of Trust on Buying Decision

The result of parameter estimation for the hypothesis testing of the effect of the trust on the generic drug buying decision shows that the value of CR is 4.686 with the probability of 0.000. This indicates that the trust has a significant effect on the generic drug buying decision of hospital patients in East Kalimantan. The higher the trust on the generic drugs is, the higher the generic drug buying decision is and vice versa.

In this research, the authors include a new dimension as a new finding in relation with the trust to the generic drugs i.e. psychological factor, which comprises motivation, perception, learning, and memory. The psychological factor gives a positive contribution to measuring and reflecting the trust variable. The result of descriptive analysis shows that the psychological factor is valued as good dimension according to the respondents of research. The psychological factor dimension which includes motivation, perception, learning, and memory consists of the following indicators: patients feel comfortable after consuming generic drugs; patients feel that generic drugs are cheaper; patients' perception on the generic drug quality; patients' perception on the generic drug prescription given by doctors, patients' perception that generic drugs are as good as patented drugs; generic drugs give a positive experience; taking generic drugs regularly maintains health; and patients keep remembering the types of generic drugs they consume and can differentiate them. The respondents give good average scores to each indicators, meaning that what the statements of indicators contain is what the respondents feel.

The patients' trust on the generic drugs has an effect on their generic drug buying decision. Drugs are needs that cannot be postponed for all patients. Although they are expensive and difficult to get, the patients will keep getting them. The phenomenon exists in the community that the recovery will immediately be obtained when the patients take the medicines regularly. The patients' trust on the illness recovery has an effect on the drug buying decision. The higher the trust on the drugs is, the higher the drug buying decision is.

In general, the patients have a trust on the generic or patented drugs they take. The patients' trust on the generic drugs cannot be separated from the doctors and other health practitioners' role. The patients need recovery, and they have strong beliefs and trusts on the drugs they, and therefore they decide to purchase the drugs they need.

In this research, a new finding i.e. trust factor is obtained, which affects the generic drug buying decision. The theory claimed by Mowen and Minor (2002:312) defines trust as consumer knowledge about an object, its attributes, and its benefits. The knowledge is useful for communicating a product and its attributes to consumers. The trust which is said to represent associations that the consumers make among the object, its attributes, and its benefits, is based on the cognitive learning process. In addition to the three trust-related attributes, one dimension. i.e. psychological process is also added in this research so as to measure the trust on a product. Kotler and Keller (2009:176) claim that psychological process is a process of decision-making and final-decision of buying. They explain further that the psychological factor includes motivation, perception, learning, and memory. This finding strengthens the theory of Peter and Donnelly (2007:41), which states that the consumer decision-making is caused by several influences including the psychological influence. Psychological influences are information of social, marketing, and situational influences that affect what the consumers think and feel about certain products and brands. The psychological factor influences how the information is interpreted and used, and how it affects the consumer decision-making. There are two important things in the psychological factor, namely: product knowledge and product involvement. The former refers to how much information of the classes of certain products, product forms, brands, models, and ways to purchase the products remains in consumer's memory. Meanwhile, the latter refers to the perception of consumers on the personal importance or relevance of a product.

Thus, it can be concluded that to measure the trust on the generic drugs refers to the theory claimed by Mowen and Minor (2002) that trust is defined as consumer knowledge about an object, its attributes, and its benefits, added with one dimension related to the psychological factor according to the theory of Kotler and Keller (2009).

The result of this research supports those of researches conducted by Kim (2008), Dewanti. et. al., (2010), and Seiedeh et al., (2012).

### **5.3 Effect of Brand Image on Buying Decision**

The result of parameter estimation for the hypothesis testing of the effect of the brand image on the generic drug buying decision shows that the value of CR is 7.337 with the probability of 0.000. This indicates that brand image has a significant effect and is prove to be true on the generic drug buying decision of hospital patients in East Kalimantan. The higher the patients' perception on the brand image of generic drugs is, the higher their generic drug buying decision is and vice versa.

Thus, the brand image has a significant effect on the generic drug buying decision. The patients' perception on the brand image attached to the generic drug brand is very important to affect the generic drug buying decision. The brand image will be formed when the generic drugs are known to the patients, and they will give a positive response for the benefits they gain. The brand image of generic drugs will be increasing along with the increasing number of patients who take the generic drugs and who get benefits from the generic drugs.

The brand image has an important position in buying decision because one of the decisions in purchase decision is the brand-related decision. One of the factors that cause the patients to determine which brand they will purchase among various existing brands is the belief that they will get the same quality when repurchasing



the goods with the same brand as the former one they purchased. The patients will not be confused on the various brands offered in the market because the brand image has been attached to their mind.

The result of this research support the theory claimed by Grewal, Krishnan, Baker, and Borin (1998 in Nan-Hong Lin, 2007:122), which suggests that the better a brand image is, the more recognition consumers give to its product quality. Rao and Monroe (1988, in Nan-Hong Lin, 2007:122) claim that a brand with a more positive image does have the effect of lowering consumers' product perception risks and increasing positive feedback from consumers. Therefore, consumers generally believe that they can make a satisfactory purchase by choosing well-known brands and also lower any purchase risks by doing so. Thus, the brand with positive image has an effect to decrease the risks of patients' product perception and to increase the patients' positive feedback. The patients, in general, believe that they can do satisfying purchase by choosing famous brands and also decrease the purchase risks by doing so.

Kertajaya (2005:6) defines the brand image as "highlight of all brand-related associations that have already existed in the mind of consumers". Meanwhile, Setiadi (2003:180) says that the brand image is the representation of all perceptions on brand and is formed from information and past experiences on the brand. The image on the brand is related to the attitudes in the forms of belief and preference toward a brand. The consumers who have a positive image on a certain brand will have more possibilities to do purchase.

The result of this research supports those of Sondoh, et al., (2007), Ruslim and Andrew (2012), Tariq (2013), Lin (2007), Hsin et al., (2008), and Jacky and Tumbuan (2014), which claim that brand image product quality, and organizational promotion simultaneously and partially have a positive and significant effect on the buying decision.

#### **5.4 Effect of Product Quality Perception on Consumer Satisfaction**

The result of parameter estimation for the hypothesis testing of the effect of the product quality perception on the generic drug consumer satisfaction shows that the value of CR is 2.934 with the probability of 0.003. This indicates that the product quality perception has a significant effect and is proved to be valid on the generic drug consumer satisfaction of hospital patients in East Kalimantan. This means that the higher the product quality perception is, the higher the generic drug consumer satisfaction is and vice versa.

The result of this research indicates that the product quality perception has a positive effect on the generic drug consumer satisfaction of hospital patients in East Kalimantan. The patients' positive perception affects their generic drug satisfaction. Those who have felt the benefits of the generic drugs and who have been recovered from their illness as well as who have recognize that the drugs they take are generic ones, give a positive response in the form of generic drug satisfaction. The patients perceive that the generic drugs are quality products. Thus, when they take the generic drugs, the patients' self confidence on the generic drugs become high, and they have a strong confidence on the performance of the generic drugs. The generic drug-related confidence owned by the patients will induce a positive perception, which later makes the patients feel pleasant and satisfied of taking the generic drugs.

This result is in line with theory claimed by Kotler and Armstrong (2006:299) that "product quality is the ability of a product to perform its function, and it includes the product's several durability, reliability, precision, ease of operation and repair, and other valued attributes". Kotler and Armstrong (2001:279), "From marketing point of view, quality should be measured in terms of buyers' perceptions". Adam and Ebert (2002:256) define "quality the customer's perception".

In addition this result also supports those of researches conducted by Satit et al., (2012), Haemoon (1999), Hafizah (2012), and Endang and Maurine (2009).

#### **5.5 Effect of Trust on Consumer Satisfaction**

The result of parameter estimation for the hypothesis testing of the effect of the trust on the generic drug consumer satisfaction shows that the value of CR is 2.852 with the probability of 0.004. This indicates that the trust has a significant effect on the consumer satisfaction. The higher the trust on the generic drugs is, the higher patients' satisfaction is and vice versa.

The patients with upper middle economy prefer buying the branded drugs to purchasing the generic ones and they felt more satisfied of consuming the branded drugs than the generic ones. However, today they also start believing the efficacy of generic drugs, and many patients feel satisfied after taking the generic drugs. The myth which says that generic drugs are the second class medicines and have low quality gradually diminishes, and the generic began to demand.

This result of research is in line with the theory claimed by Morgan and Hunt (1994:24). They suggest that trust is one of the primary determining aspects in relationship commitment. Meanwhile, Bloemer et al., (2002:69) argue that trust and commitment are mediators between satisfaction and loyalty. In addition, Garbarino and Johnson (1999:71) also much more emphasize the individual trust by referring to the consumer belief on the reliability of the goods and services extended.

According to Mowen and Minor (2002:312), consumer trust is consumer knowledge about an object, its attributes, and benefits. The knowledge is useful for communicating a product and its attributes to consumers. The trust which is said to represent the association that the consumers form among the object, its attributes, and its benefits is based on the cognitive learning process. In addition, the consumer trust is also based on the psychological factor. According to Kotler and Keller, (2009:176), psychological process is a process of decision-making and final-decision of purchase. The psychological factor includes motivation, learning, and memory.

The result of this research supports those of researches conducted by Raoul (2005), Satendra and Singh (2012), Lin and Xu (2011), Hafizah (2012), and Endang and Maurine (2009).

### **5.6 Effect of Brand Image on Consumer Satisfaction**

The result of parameter estimation for the hypothesis testing of the effect of the brand image on the generic drug consumer satisfaction shows that the value of CR is 1.129 with the probability of 0.259. This indicates that the brand image has a significant effect and is proved not to be true on the generic drug consumer satisfaction of hospital patients of East Kalimantan, meaning that the high or low brand image owned by the generic drugs will not affect the consumer satisfaction.

Thus, there is not any effect of the generic drug brand image on the consumer satisfaction. Basically, the generic drugs marketed do not employ marketing activities through promotion and advertisement as done by the branded or patented drugs. The absence of promotion or advertisement activities on the generic drugs has an effect on the introduction of patients to the generic drugs. The low introduction of patients to the generic drugs also has effect on the low perception on the generic drugs. The patients who are less familiar with the generic drugs will have a perception that they are cheap and have a low quality. This perception until now develops, and the patients also feel reluctant to take the generic drugs.

However, many patients feel the benefits of taking the generic drugs, and most of them feel satisfied with the generic drugs due to their cheap prices and competitive quality compared to the patented ones. Thus, the result of this research is in contradiction to those of researches conducted by et al., (2013), Satendra and Singh (2012), and Fransisca et al. (2012).

### **5.7 Effect of Buying Decision on Consumer Satisfaction**

The result of parameter estimation for the hypothesis testing of the effect of the buying decision on the generic drug consumer satisfaction shows that the value of CR is 5.168 with the probability of 0.000. This indicates that the buying decision has a significant effect on the generic drug consumer satisfaction of hospital patients in East Kalimantan, meaning that the higher the buying decision is, the higher the generic drug consumer satisfaction is and vice versa.

The patients' satisfaction following the generic drug purchase becomes a valuable variable for the drug producers and the government as the generic drug-related policy maker. The feeling of satisfaction and that of dissatisfaction toward the generic drugs result in positive and negative things respectively because the patients who are satisfied or dissatisfied will indirectly do communication by the words of mouth so that others' perceptions on the generic drugs emerge.

The result of this research is in line with the theory of Kotler and Armstrong (2006:137). They claim that consumer buying decision process is a systematic way of looking at how a consumer makes the decision to purchase a product (any product) in a product category. The consumer buying decision has a five-step process: problem recognition, information search, evaluation of alternatives, purchase and post-purchase.

Furthermore, Mullins and Orville (2010:450) also argue that Measures of customer satisfaction should examine both customers' expectations and preferences concerning the various dimensions of product and service quality (such as product performance, features, reliability, on-time delivery, competence of service personnel, and so on) and (2) their perceptions concerning how well the firm is meeting those expectations. Any gaps where customer expectations exceed their recent experiences may indicate fruitful areas for the firm to work at improving customer value and satisfaction.

The result of this research supports that of research conducted by Bowen and Chen (2001), which claims that the buying decision has an effect on the consumer satisfaction and is closely related to the repurchase decision where the consumers who are satisfied will raise trust and give recommendation and positive information to others.

## **6. New Finding**

This research gains several new findings that need some empirical attentions. First, the product quality perception has a significant effect, but is not proved to be true on the generic drug buying decision of hospital patients in East Kalimantan, meaning that the patients' high or low perception on the generic drug quality is not proved to be true to affect the generic drug buying decision of hospital patients in East Kalimantan. The absence of significant effect of the product quality perception on the generic drug buying decision is merely caused by

the patients' generic drug perception which is much more influenced by doctors, chemists, and other health practitioners, who know about the generic drugs. All this time, the generic drug buying decision is much more determined by the prescriptions of doctors. The patients' generic drug perception seems to have no meaning at all in generic drug buying decision.

Secondly, the brand image has a significant effect and is not proved to be true on the generic drug consumer satisfaction of hospital patients in East Kalimantan, meaning that the high or low brand image owned by the generic drugs is not proved to be true to affect the consumer satisfaction.

Finally, the consumer trust is also determined by psychological factor as it is a process included in the decision-making and in the final decision of buying a product. The psychological factor includes motivation, perception, learning, and memory.

## 7. Conclusion

- 7.1 The product quality perception has a significant effect but is proved to be not valid on the generic drug buying decision of the hospital clients in East Kalimantan so that proposed hypothesis is rejected, meaning that the high or low generic drug quality perception is proved not to be true to affect the generic drug buying decision.
- 7.2 The consumer trust has a significant effect and is proved to be valid on the generic drug buying decision of the hospital clients in East Kalimantan so that the proposed hypothesis is verified, meaning that the higher the consumer trust on the generic drug is, the higher the generic drug buying decision is and vice versa.
- 7.3 The brand image has a significant effect and is proved to be valid on the generic drug buying decision of the hospital clients in East Kalimantan so that the proposed hypothesis is verified, meaning that the better the patient's perception on the generic drug brand image is, the higher his or her generic drug buying decision is and vice versa.
- 7.4 The product quality perception has a significant effect but is proven to be true on the generic drug consumer satisfaction of hospital clients in East Kalimantan so that the proposed hypothesis is verified, meaning that the higher the product quality perception is, the higher the patient's generic drug satisfaction is and vice versa.
- 7.5 The consumer trust has a significant effect and is proved to be valid on the generic drug consumer satisfaction of hospital clients in East Kalimantan so that the proposed hypothesis is verified, meaning that the higher the generic drug consumer trust is, the higher the patient's generic drug satisfaction is and vice versa.
- 7.6 The brand image has a significant effect but is proved not to be true on the generic drug consumer satisfaction of hospital clients in East Kalimantan so that the proposed hypothesis is rejected, meaning that the high or low generic drug brand image is proved not to be true to have an effect on the patient's generic drug satisfaction.
- 7.7 The buying decision has a significant effect and is proved to be valid on the generic drug of hospital clients in East Kalimantan so that the proposed hypothesis is verified, meaning that the higher the patient's generic drug buying decision is, the higher the patient's generic drug satisfaction is.

## 8. Recommendation

- 8.1 The government shall continuously supervise the distribution of generic products to pharmacies or drug stores make sure that their supply is not smaller than their demand so as to avoid difficulties for the community to buy them, and ensure an easy access to get them.
- 8.2 In order to improve the role of generic products to the patients, the government shall more firmly conduct reposition and revitalization of generic drugs in the policy-making pursuant to Regulation of the Minister of Health Number: HK.02.02/Menkes/068/I/2010 regarding Duty to Use Generic Drugs in State Health Service Facilities and Regulation Number: HK.03.01/Menkes/159/I/2010 regarding the Development and Supervision of Generic Drug Use in Governmental Health Service facilities.
- 8.3 Doctors, nurses, and pharmacists shall educate the patients and community on drug type, efficacy, and drug composition of generic products, registered branded drugs, and patented drugs.
- 8.4 The doctors are very necessary to pay attention when extending prescription to the patients and when giving information and education about rational drug use.
- 8.5 The patients shall use their rights to raise questions, to ask for what generic drugs are, and to get generic drug prescription by medical doctor.

## References

- Aaker, David. 2000. *Brand Leadership*. Jakarta : Gramedia Pustaka Utama
- . 2008. *Manajemen Ekuitas Merek*, translated by Aris. Ananda, Jakarta: Mitra Utama.
- Barnes, James G. 2003. *Secrets of Customer Relationship Management. It's All about How You Make Them Feel*.

- New York: McGraw-Hill
- Bearden, William O., Thomas N.Ingram., Raymond W. LaForge.2004. *Marketing Principles and Perspectives*, Fourth Edition. New York: Mc Graw-Hill.
- Bloemer, Josee and Gaby Odekerken-Schroder. 2002. *Store Satisfaction and Store Loyalty Explained by Customer and Store Related Factors*. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior. No 15, pp. 8-83.
- Bowen, John T. and Chen, Shiang-Lih. 2001. *The Relationship between Customer Loyalty and Customer Satisfaction*. Gramadia Pustaka Utama, Jakarta.
- Bromiley, P. and Cummings, L. L., 1995. *The Occupational Trust Inventory (OTI): Development and Validation*. In R. Kramer, & T. Tyler (Eds.), *Trust in organizations* (pp. 302-330). Thousand Oaks, CA: Sage
- Chelliah Shankar and Kwon Chin Kok. 2011. *A Study of The Relationship Between Marketing Mix And Customer Retention For Herbal Coffee In Malaysia*. 2nd International Conference On Business And Economic Research (2nd ICBER 2011) Proceeding. pp 1541-1552
- Creech, Bill. 1994. "11: *A TQM Path to Tomorrow: New Ways for New Days*". *The Five Pillars of TQM: How to Make Total Quality Management Work for You*. New York: Truman Talley Books. pp. 478. ISBN 9780525937258.
- Ching-Fu Chen and Yu-Ying Chang. 2008. *Airline Brand Equity, Brand Preference, and Purchase Intentions—The Moderating Effects of Switching Costs*. Journal of Air Transport Management, No. 14 (2008), pp. 40–42
- Deshpande, R, Moorman, C. and Zaltman, G., *Factors Affecting Trust in Market Research Relationship*. Journal of Marketing Vol. 57 (1), 1993.
- Dewanti Retno, Ishak Ismail., Muhammad Jalu Tasrihanto., Aditya Prabowo. 2010. *Analysis of Influence Brand Trust and Brand Image towards Buying Decision the Private Label Product and Their Impact on Brand Loyalty*. 7<sup>th</sup> Ubaya International Annual. Symposium On Management.
- Donney, Patricia M and Joseph P. Cannon.1997. *An Examination of the Nature of Trust in Buyer Seller Relationship*. Journal of Marketing. No 61, pp. 35-51
- Endang Tjahjaningsih and Maurine Yuliani. 2009. *Analisis Kualitas Produk dan Citra Merek dalam Mempengaruhi Keputusan Pembelian dan Dampaknya terhadap Loyalitas Merek*. HP Nokia. *TEMA*. Vol 6 edisi 2, September 2009, hlm 104 - 118.
- Farris, Paul W.; Neil T. Bendle; Phillip E. Pfeifer; David J. Reibstein (2010). *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*. Upper Saddle River, New Jersey: Pearson Education, Inc. ISBN 0-13-705829
- Ferrinadewi Erna. 2008. *Pengaruh Threat Emotion Konsumen dan Brand Trust pada Keputusan Pembelian Produk Susu Anlene di Surabaya*. *Jurnal*. Universitas Widya Kartika.
- Fransisca Andreani, Tan Lucy Taniaji, Ruth Natalia Made Puspitasari. 2012. *The Impact of Brand Image towards Loyalty with Satisfaction as a Mediator in McDonald's*. *Jurnal Manajemen dan Kewirausahaan*, Vol.14, No. 1, March 2012, pp 64-71.
- Garbarino, Ellen and Mark S Johnson. 1999. *The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships*. Journal of Marketing. No. 63, pp 70-87.
- Garvin, D. A. 1987. *Managing Quality*. New York: The Free Press
- Goetsch David L dan Stanley B. Davis. 2002. *Pengantar Manajemen Mutu 2*. Ed. Bahasa Indonesia. Jakarta: PT Prenhalindo.
- Hafizah. 2012. *Hubungan Kepercayaan Merek dan Kualitas Produk Telkomsel Flash terhadap Kepuasan Konsumen di PT.Telkomsel Grapari Medan Selecta*. *Jurnal Keuangan & Bisnis*, Vol. 4 No. 1, March 2012, pp. 83-97
- Hair, J.F., Anderson, R.E., Tatham, R.L., and Black, W.C. 1995. *Multivariate Data Analysis with Reading*, Ed.4. New. Jersey: Prentice Hall International, Inc
- Hellier, Phillip K., Geursen, Gus M., Carr, Rodney A. and Rickard, John A. 2003, *Customer Repurchase Intention: a General Structural Equation Model*, European journal of marketing, Vol. 37, no. 11, pp. 1762-1800.
- Hsin Hsin Chang, Che-Hao Hsu, Shu Hsia Chung. 2008. *The Antecedents and Consequences of Brand Equity in Service Markets*. *Asia Pacific Management Review* 13(3) (2008), pp. 601-624
- Jaafar Siti Nurafifah and Pan Ein Lalp. 2012. *Consumers' Perceptions, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia*. *Asian Journal of Business and Management Sciences*. ISSN: 2047-2528 Vol. 2 No. 8. pp. 73-90.
- Jacky R. Manoppo Willem J.F Alfa Tumbuan. 2014. *Citra Merek, Kualitas Produk, dan Promosi Pengaruhnya Terhadap Keputusan Pembelian Parfum Excite Oriflame*. *Jurnal EMBA*. Vol.2 No.2 June 2014, pp 1032-1042.
- Kertajaya, Hermawan. 2005. *Marketing in Venus*, PT Gramedia. Pustaka



- Kim Dan J. 2008. Trust And Satisfaction, Two Stepping Stones For Successful E-Commerce Relationships: A Longitudinal Exploration. *Paper*. University of Houston Clear Lake
- Kotler P and Keller Kevin Lane. 2006. *Marketing Management 12e*, Pearson International Edition, USA
- \_\_\_\_\_ 2009. *Manajemen Pemasaran*. Edisi Ketiga Belas. Vols. 1 and 2. Translated by: Bab Sabran. Jakarta : PT. Erlangga.
- Kotler Philip and Gary Armstrong. 2006. *Principles of Marketing*. 11 edition. Prentice Hall, New Jersey.
- Kotler Philip. 2005. *Manajemen Pemasaran*, Vols. 1 and 2. Jakarta: PT. Indeks. Kelompok Gramedia.
- Kotler Philip. 2002. *Manajemen Pemasaran 1*. Milenium ed. Jakarta: PT. Prenhallindo.
- Lin, Nan-Hong. 2007. *The Effect of Brand Image and Product Knowledge on Purchase Intention Moderated by Price Discount*. Journal of International Management Studies. pp. 121-132.
- Lin, Po-Hung and Xu, San-Wei. 2011. The Study of E-Commerce on Trust, Satisfaction and Loyalty. *International Conference on Innovation, Management and Service IPEDR Vol.14 (2011) © (2011) IACSIT Press, Singapore*.
- Morgan, Robert M. and Shelby D. Hunt, 1994. *The Commitment-Trust Theory of Relationship Marketing*, Journal of Marketing, Vol. 58 No. 3, pp. 20-38.
- Mowen, John, C., and Minor, M. 2002. *Perilaku Konsumen Jilid 1*, Edisi Kelima (translation), Erlangga, Jakarta
- Mullins, John W. and Orville C. Walker, JR, 2010. *Marketing Management: A Strategic Decision-Making Approach, Seventh Edition*. New York: McGraw-Hill Companies Inc.
- Musdiana Mohamad Salleh., Siti Meriam Ali., Siti Meriam Ali., Ety Harniza Harun., Muna Abdul Jalil., And Nurazila Abdul Aziz. 2010. Consumer's perception and purchase intentions towards organic food products: Exploring attitude among academicians. *Canadian Social Science*. ISSN 1923-6697[Online]. Vol. 6, No. 6, 2010, pp. 119-129
- Nan-Hong Lin and Bih-Shya Lin. 2007. *The Effect of Brand Image and Product Knowledge on Purchase Intention Moderated by Price Discount*. Journal of International Management Studies \* August 2007, pp. 121-132.
- Nazia Yaseen, Mariam Tahira and Amir Gulzar. 2011. *Impact of Brand Awareness, Perceived Quality and Customer Loyalty on Brand Profitability and Purchase Intention: A Resellers' View*. *Interdisciplinary Journal of Contemporary Research In Business*, VOL 3, NO 8. pp. 833-839
- Nurafifah, Ein and Mohaini. 2012. Consumers' Perceptions, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia. *Asian Journal of Business and Management*. Sciences ISSN: 2047-2528 Vol. 2 No. 8, pp. 73-90.
- Parasuraman, A., Valerie. A. Zeithaml, and Leonard. L. Berry. 1998. *SERVQUAL: A Multiple-item Scale for Measuring Consumer Perceptions of Service Quality*. Journal of Retailing, Vol. 64, No. 1.
- Raoul Graf. 2005. *The Role of Trust And Satisfaction in a Relationship: The Case of High Tech Firms and Banks*. Paper presented at the 2005 Conference of the European Marketing Academy (EMAC), Munich, May 2005.
- Ruslim Tommy Setiawan and Andrew Richard. 2012. *Pengaruh Brand Image dan Product Knowledge terhadap Purchase Intention (Kasus: Kosmetik Merk "X")*. *Media Bisnis*. March 2012, pp. 35-44.
- Satendra Thakur and A P Singh. 2012. *Brand Image, Customer Satisfaction and Loyalty Intention: A Study in the Context of Cosmetic Product among the People of Central India*. *International Journal of Multidisciplinary Management Studies* Vol.2 Issue 5, May 2012, ISSN 2249 8834.
- Satit, Rezky Purna, Huam Hon Tat, Amran Rasli. 2012. *The Relationship between Marketing Mix and Customer Decision-Making Over Travel Agents: An Empirical Study*. *International Journal of Academic Research in Business and Social Sciences*. June 2012, Vol. 2, No. 6 ISSN: 2222-6990. pp 522-530
- Seiedeh Nasrin Danesh, Saeid Ahmadi Nasab and Kwek Choon Ling. 2012. *The Study of Customer Satisfaction, Customer Trust and Switching Barriers on Customer Retention in Malaysia Hypermarkets*. *International Journal of Business and Management*, Vol. 7, No. 7; April 2012. ISSN 1833-3850. pp. 141-150.
- Setiadi Nugroho. 2003. *Perilaku Konsumen*. Jakarta : PT. Kencana Prenanda Media.
- Sirdeshmukh, Deepak, Japdig, Singh, Berry, Sabol. 2002. *Customer Trust, Value and Loyalty in Relational Exchanges*. Journal of Marketing. No. 66, pp/ 15-37
- Sondoh Jr. Stephen L., Maznah Wan Omar, Nabsiah Abdul Wahid, Ishak Ismail and Amran Harun. 2007. *The Effect of Brand Image on Overall Satisfaction and Loyalty Intention in The Context of Color Cosmetic*. *Asian Academy of Management Journal*, Vol. 12, No. 1, 83-107, January 2007, pp. 83-107.
- Sudomo. 2013. *Pengaruh Ekuitas Merek terhadap Keputusan Pembelian (Studi Kasus Konsumen Pepsodent di Kabupaten Bantul)*. *JBMA – Vol. I, No. 2, February 2013* ISSN: 2252-5483, pp. 33-48
- Suhardi, Gunarto. (2006). *Faktor-faktor yang Mempengaruhi Kepercayaan dan Loyalitas Nasabah Perbankan di Surabaya*. *Jurnal Kinerja*, Vol. 10, No.1, Th. 2006, pp50-56.
- Tariq, Muhammad Irfan, Nawaz and Hashim Awais Butt. 2013. *Customer Perceptions about Branding and*



- Purchase Intention: A Study of FMCG in an Emerging Market*. Journal of Basic and Applied Scientific Research. J. Basic. Appl. Sci. Res., 3(2)340-347, 2013. ISSN 2090-4304. pp. 340-347
- Taylor, Stephen A. 2001. *Assessing the Use of Regression Analysis in Examining Service Recovery in the Insurance Industry Relating Service Quality, Customer Satisfaction and Customer Trust*. Journal of Insurance. Issues 24, pp. 30- 57.
- Tjiptono and Chandra. 2005. *Service Quality and Satisfaction*. Edition 2. Yogyakarta: Penerbit Andi.
- .Yu-Te Tu, Mei-Lien Li, Heng-Chi Chih. 2013. *An Empirical Study of Corporate Brand Image, Customer Perceived Value and Satisfaction toward Loyalty in Shoe Industry*. Journal of Economics and Behavioral Studies. Vol. 5, No. 7, July 2013 (ISSN: 2220-6140). pp. 469-483.

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