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## Relationship of Consumer Involvement, Credibility of the Source of Information and Consumer Satisfaction on Purchase Decision of Non-Prescription Drugs

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### Abstract

In choosing appropriate non-prescription drug, consumers need to search for more and impartial information before purchasing in order to achieve best result. The goal of the study was to understand the relationship between Credibility of the Source of Information (I), Consumer Involvement (K) and Consumer Satisfaction (S) on Purchase Decisions (P) of Non-Prescription Drugs. Method of the study is survey and data was analyzed and interpreted using Structure Equation Modeling (SEM) by using Partial Least Square (PLS) software version 2.0. Questionnaires were disseminated to consumers who used certain non-prescription drugs in two big cities in Indonesia. The relationship between I, K, S and P showed positive influence of each other.

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**Keywords:** Credibility of the Source Information; Consumer Involvement; Purchase Decision; Consumer Satisfaction; Marketing; SEM.

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### 1. Introduction

In order to suppress the high health costs, the people of Indonesia do self medication with one of them to buy drugs that can be purchased without a prescription. Group of Pharmacy Company Indonesia (GP Pharmacy) projecting non-prescription drugs sales in Indonesia in 2012 reached Rp. 23.1 trillion, which is about 55% of total drug sales. This number increased from the year 2011 projected only about Rp. 17.1 trillion (IFT, 2011; GP Pharmacy, 2012). Non-prescription drug is a drug that is sold directly to consumers and does not require a prescription (Depkes RI, 2010).

On the use of non-prescription drug, consumers are responsible for decisions about drug use, including recognition of the appropriate indication, appropriate doses regimens with respect to the amount, frequency, and duration of use, and consult an expert if the side effects appeared, or if the condition underlying does not respond or worse (Brass et al., 2011).

Before deciding to buy drugs, consumers will go through several stages such as the introduction of a

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problem or a symptom of disease, then find the appropriate information on drug indications, and evaluate alternatives to these drugs on the market, and finally decided that the right medication that will be used. After buying drug, then consumers will evaluate whether to recover unreachable expectations of the drug chosen and realized in the form of feeling satisfied or not satisfied (Gerson, 2002; Kotler et al., 2005).

When consumers search for information about the drug, some consumers will be interested to find out as much and are very concerned about several types and brands of drugs for the same indication. For other consumers who demand the same drug the situation was not same. This is related to the involvement of consumers where the consumers who perceive that a product is said to be more important personally involved (Peter and Olson, 2002; Sridhar, 2007). Consumers who have a high involvement will be motivated to make the right decisions, to minimize risk and maximize profit (Setiadi, 2003; Sridhar, 2007). Gore et al. in 1995 conducted research on consumer involvement in purchasing non-prescription drugs, where the results of his study illustrate the high involvement of consumers in search of information and an evaluation of the brands of non-prescription drugs they need.

Consumers are turning to multiple sources of information to help solve the problems associated with drugs use. To determine the non-prescription drugs that are best suited to their conditions, consumers rely on the following information sources (Gore et al, 1995), such as commercials, common and people sources. In general, most of the consumers get the information about a product from commercial sources, that kind of sources is dominated by marketers. However, the most effective information derived from those sources because of its advantages compared to other sources of information is to help consumers understand the information related to products with ordinary explanation, evaluation and individualization of information is concerned (Gore et al., 1995, Kotler et al., 2005).

The success of the information will depend on the credibility of the sources that provide information about these products. Credibility of information sources can be interpreted as how much the consumer to see the source of knowledge, skill or experience relevant and trusted sources to provide an unbiased and objective (Negara, 2004). Therefore the source of information with high credibility will influence consumers when deciding to buy drugs (Mittelstaedt et al., 2000).

Overall our purpose study is to understand the relationship between consumer involvement and credibility of the source of information as the latent variables and purchase decision of non-prescription drugs as the mediation variable on consumer satisfaction as the latent variable.

## **Hypotheses**

In the model developed credibility of the source of information Hovland et al. (1951), the success of information will depend on the credibility of the sources that convey messages about the product. If the source is considered to have good credibility, then consumers will trust the message and will receive it well. But if the information was considered not to have credibility, the message will not give effect to the consumer (Mittelstaedt et al., 2000; Biwas; 2006).

### **H1: Credibility of the source of information has positive influence on purchase decision**

Involvement is simply defined as how much time and effort required of consumers to seek information, an evaluation in the decision process (Lamb, et al., 2004). Consumer involvement is related to consumer behavior, one of which is the purchase decision process. Involvement in the process of bringing the consumer purchase decision on information search and spend more time to get the right choice (Clarke and Belk 1978; Bloch, 1982). Measurement of consumer involvement is a measure of the high and low involvement. Consumers with high involvement should be more interested in obtaining information about the product than consumers with low involvement. Besides evaluating alternatives to competitive products because consumers are very involved in the search for relevant information. Consumers with high involvement also will feel the difference between brands is greater than consumers with low involvement, which can be presumed to have the most preferred brand in the product category (Zaichkowsky, 1985; Gore, et al., 1995; Sridhar, 2007).

### **H2: Consumer involvement has positive influence on purchase decision**

In a decision process, the consumer does not stop the consumption process. Consumers will conduct an evaluation of the consumption process that has been done. The result of the evaluation process of consumption that has been done is the consumer will be satisfied or not satisfied with the consumption of

products that have been done. (Hean et al., 200; Gountas, et al., 2006; Sumarwan, 2011). Buy a quality decision to determine how the benefits and uses can form consumer satisfaction (Isliko and Rahayu, 2008).

**H3: Purchase Decision has positive influence on customer satisfaction**

**2. Method**

**Population and Sample**

The population in this study is the consumers or patients who had bought non-prescription drugs, both in pharmacies, drug stores and supermarkets. Sampling was done by non-probability convenience sampling technique or the sample is not random sampling because researchers did not have to base the sample on the strata or regions. Expected best results, we used the minimum sample size of 200 respondents, of which there are disseminated online and directly. Bandung and Jakarta (Capital city of Indonesia) are chosen area considered to all factors required completely.

**Instrument**

The instrument used was questionnaire that containing questions cited from several published articles. We translated some English questions into Indonesian. Credibility of the sources of information variable contained five questions adopted from the Negara (2004) with a 1-7 Likert scale of measurement, consumer involvement variable contained six questions adapted from Gore et.al (1995) with a 1-7 Likert scale of measurement, purchase decision variable contained six questions with three questions adapted from Kinayungan (2011) and three questions adapted from Batubara (2010) with a scale of 1-5 and variable of customer satisfaction consisted of four questions in which the three questions adapted from Ho et al. (2008) and a question was developed from Sumarwan (2011). All questions have a statement of the criteria scales from strongly disagree (1) to strongly agree (7).

**Analysis data**

Hypotheses testing and path between variables were analyzed and interpreted using structural equation modeling (SEM) by using partial least squares (PLS) software version 2.0. descriptive data was analyzed by using SPSS version 13.0 (free edition).

**3. Results**

**Descriptive Analysis**

From table 1 we can see the average scale of consumers for each question answered each variable or mean score, the Standard deviation for each variable and Correlation between variables.

Table 1 Summary of Mean, Standard Deviation, and Correlation

Variable	Mean	SD	I	K	P	S
I	5.40	1.38	0			
K	4.48	1.26	.346**	0		
P	3.58	0.53	.027	.175**	0	
S	3.72	0.43	.074	.123	.476**	0

Note: I: Credibility of Sources Information; K: Involvement of Consumers, P: Purchase Decision; S: Consumer Satisfaction.

\*\* Correlation is significant at the 0.01 level (1-tailed).

Table 2 Summary of indicator and outer loading value

Indicator	I2	I4	I5	K5	K6	P4	P5	P6	S2	S5	S6	S7
Outer loading value	0.75	0.88	0.98	0.78	0.94	0.71	0.86	0.84	0.71	0.79	0.84	0.85

Table 3 Score of AVE, Communality, Cronbach’s alpha and Composite reliability

Variable	AVE	Communality	Cronbach’s alpha	Composite reliability
I	0.77	0.77	0.89	0.91
K	0.74	0.74	0.67	0.85
P	0.65	0.65	0.73	0.85
S	0.64	0.64	0.81	0.88

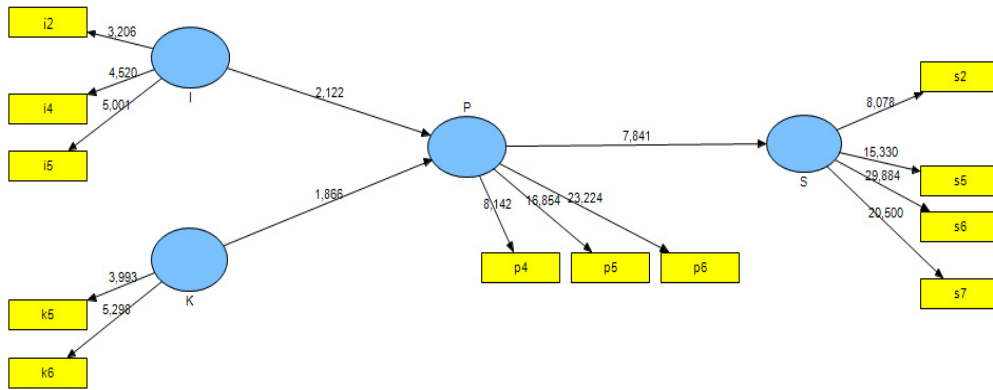


Fig. 1 Path analysis, t-value and factor loading of research variables (95% confidence level, one-tailed in the table)

**Validity and reliability**

The study tested the validity and reliability of questionnaire. Convergent and discriminant validity of the data used in the analysis of already qualified, the outer value of each indicator loading  $\geq 0.7$  and AVE values  $> 0.5$  (Ghazali, 2008).

In the reliability test, researchers used a method of measuring the Cronbach's alpha and composite reliability. By looking at the value obtained  $> 0.6$  it stated reliable (Ngai et al., 2004). The values of Cronbach's Alpha and Composite Reliability for all variables have a value of more than 0.6. It can be said that the measuring instruments used in this study is reliable.

**Demographic and characteristic data**

Respondents who involved in the study are the consumers who buy non-prescription drugs as many as 177 people, with a number of questionnaires disseminated are 200 in which there are 80 of them online and 120 are directly. Therefore, the response rate in this study is the number of respondents who filled out questionnaires  $\div$  number of questionnaires distributed  $\times 100\% = (177 \div 200) \times 100\% = 88.5\%$ . Results of research conducted on 177 respondents showed that respondents varied characteristics of gender, age, education, monthly income, and type of hospital.

**Path analysis and hypotheses testing**

From figure 1 we can see t-value of I on P is 2.12, K on P is 1.87 and P on S is 7.84. The results are used for testing and answering the hypotheses. The path between all variables is resulted excellent.

**4. Discussion**

**Credibility of the source of information on purchase decisions**

Credibility is how much consumers see the sources of knowledge, skills or experience relevant and trusted sources to provide an unbiased and objective. Information from credible sources that influence the beliefs, opinions, attitudes, and or behavior through a process called internalization, which occurs when consumers adopt the opinion from a credible source since he believes that the information provided is accurate enough (McCracken, 1989; Goldsmith et al., 2000 quoted by Negara, 2004). In general, the message delivered by a source that has a high credibility will be more readily accepted and more easily lead to greater attitude change (Mittelstaedt et al., 2000; Biswas, 2006).

Models of source of information that expert in the healthcare services are doctors, pharmacists and assistant of pharmacists. These three sources have competence in the field of health, including understanding the workings and use of appropriate medications. A total of 26.55% of 177 respondents selected doctors as a source of information, and this presentation is the largest presentation of information on the selected source categories of respondents. This proves that the sources that have high credibility in the health sector can affect consumer decisions to buy drugs.

**Consumer involvement on purchase decision**

Figure 1 shows that consumer involvement has a positive effect on purchase decisions. This is in accordance with the theories put forward Engel et al., (1995) that the consumer purchase decision-making

can be influenced by one's involvement. According to Kotler et al., (2005) one of the stages in the purchase decision is information retrieval. Where in line with the increase in involvement, consumers process information more deeply and with the increasing involvement, consumers have a greater motivation to observe, understand and elaborate the necessary information about the product (Mowen, 2001; Sridhar, 2007), thus minimizing the risk of such side effects unwanted or old healing and maximize profits. This formed the motivation would be in line with the desire of consumers to decide to buy non-prescription drugs certain.

### **Purchase decision on consumer satisfaction**

In accordance with the invention Gountas and Gountas (2007) in Australia, that there is a significant influence on purchase decisions of consumer satisfaction.

Purchase decision was the fulfillment of the needs and desires of consumers who in turn have an impact on consumer satisfaction (Hean et al., 2001; Gountas and Gountas, 2007). According Isliko and Rahayu (2008), decisions to buy a quality to determine how the benefits and uses to establish customer satisfaction. The quality of decisions can be shown from the intention or the intention to buy highly. It shows how much the underlying consumers choose the drug to achieve the expectations of cure.

### **Limitations**

Some of the weaknesses and limitations in this study include:

1. Common method bias, it is possible the occurrence of common method bias in this study the respondents answered the question only rely on subjective assessments of respondents, or commonly referred to as self-reporting that the respondent's answer is equally harmful to the perceptual bias of systematic errors in understanding others perceptions.
2. Sample size, number of samples in this study is not so large, in the use of larger samples expected to have better results anyway.
3. The results of the study cannot be generalized to a variety of different condition, to obtain the results of research on different conditions need to be re-adjusted to the conditions of testing research.

### **5. Conclusion**

Based on from previous study about consumer involvement in purchase decision of non-prescription drugs, we try to understand more about others variables that have relationship with those two variables. From the literatures have been searched, we considered that credibility of the source of information and consumer satisfaction have relationship with two variables before. The results showed that purchase decision suggested a role as mediation between the credibility of sources of information and consumer involvement on consumer satisfaction. The relationships between all variables have significant positive influence.

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