

# Impact Of Food Industry Application Advertising At Internet And Marketing By E-mail Toward Processing Information And Buying Decision

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## Abstract

Blooming of information technology make every unit business can be nearly the consumer in spite of via electronic media. One of effort can doing with business unit for reach to consumer is using blooming of information technology. The effective method for reach to potential consumer at large number is using computer technology especially with internet. With applied e-commerce every business unit can reach to global consumer in short time and minimum cost.

Scope of this research is to look impact of advertising applied with internet and marketing by e-mail of food industry toward processing information and decision buying internet user at Jakarta, Bogor, Depok, Tangerang and Bekasi. Data of this research collected by questionnaire distribution to internet user and respondents have 15 years minimum age.

Internet have the role not only to information search, but have big potency as marketing media. At Indonesia advertising media with internet not yet useful using, in spite of at percentage Indonesia have

higher growing comparison other country at Asia Pacific for advertising expenditure. The goals of the research is 1). Recite impact of applied product advertising program in internet and marketing by e-mail toward buying decision after information processing of internet user, and 3). Recite impact of information processing of respondents toward buying decision of food industry.

Factor of precise factors of this research is research variable illustrated scope and relation and which targeting in this research, that are food industry advertising program, marketing with e-mail, information processing and buying decision. In this research using only 6 primer step of IP model, that are exposure, attention, comprehension, agreement, retention and purchase.

Keynote : E-commerce, Internet, E-mail, Information technology

## INTRODUCTION

Product marketing is a pillar to every company besides other activities that must be done to reach the best goals in selling its products. The development of recent information technology becomes one of the alternative media in marketing products, and furthermore as a tool to promote a company thoroughly to public.

Globalization and liberalism of trading lead to the global market for Indonesian products on the other hand, the domestic market is open for international products. This condition give the national companies opportunities to develop and compete in line with the fast growing globalization process.

Recently, the role of Internet is not only as a tool to search for information but also as marketing and trading media. Internet advertising media in Indonesia has not been maximally used, although Indonesia is the highest in percentage of advertising consumption growth compared to other countries in Asia-Pacific. Based on the explanation, it can be concluded that the use of Internet for advertising has important role in operating a company.

The scope of the research is Internet advertising that is done by food industry in Indonesia using the combination of websites advertising and the use of e-mail (electronic mail) method in influencing the decision making of consumers. This is based on research conducted by Sularo (2007) that stated the effective advertising is advertising using websites and e-mail.

This research is limited into two tests. The first test is to examine the influence of internet advertising and e-mail marketing of food industry in Indonesia on the information processing and purchasing decision of Internet users. Followed by examining the influence of Internet advertising of food industry in Indonesia on the increasing of product selling.

### **Problem of The Research**

As explained before, this research is aimed to develop the advertising media and effective marketing activities for food industry products in Indonesia. The measurement used is a combination of advertising decision model as advertising program (Kotler, 2005), E-mail marketing model (Kalyanam, 2002), Information processing model (McGuire, 1999) with the main questions: :

1. Does the conducting of product Internet advertising program and e-mail marketing of food industry in Indonesia significantly influence the processing of advertising information?
2. Does the conducting of product Internet advertising program and e-mail marketing of food industry in Indonesia significantly influence, both directly and through advertising information processing phase, the purchasing decision of the Internet users?
3. Does the information processing of consumers or Internet users influence the purchasing of a product?

### **Aims of The Research**

The main purposes of the research are :

1. To examine the influence of the conducting of Internet advertising program and e-mail marketing of food industry products in Indonesia on the advertising information processing by the Internet users.
2. To examine the influence of the conducting of Internet advertising program and e-mail marketing of food industry products in Indonesia on the purchasing decision of

Internet users both directly and through advertising information processing phases.

3. To examine the influence of information processing of consumers on the purchasing of food industry products decision.

### **THEORETICAL FRAMEWORK**

In Indonesia, Internet is mostly used to promote than to sell (e-commerce) (Andam, 2003). Advertising has a main influence that is to give a contribution to company's profit. However, profit can be defined broader. Profit can be measured in monetary measurement, such as the increasing of profit or the higher stock exchange. It also can be measured in other unit such as the decrease of accident caused by alcohol while driving (Rossiter and Percy, 1998). There are three fundamental ways for companies to achieve maximal profits: by increasing the price of the products, by decreasing budget, or by increasing the volume of selling (Rossiter and Percy, 1998). However, advertising can be connected to the increasing of selling volume. This way influence the three factors. Therefore, advertising that increase profit of advertised company-by the increasing of selling volume, the increasing of the willingness of consumers to pay or to decrease budget related to the products- can be assumed as effective advertising. (Bergkvist, 2000). However in many researches, it is found that the goal to gain profit is not the main goal of Internet advertising. The result of the research by International Federation of the Periodical Press (Consterdine, 2005) on websites magazine shows that the main goal of websites magazine is to broaden publication exceeding the number consumers of printed edition by creating new online consumers (84%). The second main goal is to use the websites to attract new readers of printed edition magazine (81%). The goal to gain new income in short or long period is in the next position.

According to Kalyanam et.al (2002), e-mail is used for three main functions: The first function, is to promote the product, the second function is to give consumer services, and the

third function is to accept questions from consumers. The first function is related to promotional e-mail, the second. and the third functions are related to service related e-mail. Service-related e-mail is an e-mail received by consumers when a transaction between different parties happens. This e-mail contains information related to the transaction. Therefore, it shows that service related e-mail is more or less specific for different consumers and that promotional e-mail is sent in bigger amount than service related e-mail to all or most of the consumers.

Consumer's decision process as the result of advertising exposure generally begins with the introduction of need, information searching, alternative evaluation, and the last is purchasing and satisfactory (Sumarwan, 2003). However, for the decision process of Internet purchasing, Champy et al (1997) arrange new mode that consists of: *Knowledge*: (to search information of a product to have an understanding), *Interaction*: (to communicate with producer), *networking* (to interact with other consumers that have similarities in need and experience), *sensory experiences*: (to use sensory input such as, pictures, and sounds before making purchasing decision), *ubiquity*: (to acquire all of consumer's need in line with the time and place wanted by consumers (not producers)), *aggregation*: (to meet a number of services related to consumers in the certain place), *customization*: (to adjust the product in line with consumer's need).

E-mail marketing can be deemed as a tool of electronic marketing (e-marketing). E-mail marketing is included into the group of direct marketing (Kotler, 2005). Direct marketing is direct communication of producer and consumer, it can be by mail, fax, e-mail, or SMS. Direct marketing is defined as 'interaction system that uses one or more advertising media to influence measurable responses, and or transaction wherever the place is' (Lincoln and Vanden Bergh, 1990). *E-mail marketing*, therefore, is direct marketing that is managed by online

instrument, namely e-mail. According to Kalyanam et al (2002), e-mail is used for three main functions: The first function, is to promote the product, the second function is to give consumer services, and the third function is to accept questions from consumers. The first function is related to promotional e-mail, the second. and the third functions are related to service related e-mail. Service-related e-mail is an e-mail received by consumers when a transaction between different parties happens. This e-mail contains information related to the transaction. Therefore, it shows that service related e-mail is more or less specific for different consumers and that promotional e-mail is sent in bigger amount than service related e-mail to all or most of the consumers.

The information processing used in this research model is based on *information-processing model/ ip model* that is written by William J. McGuire (1976). This model is one of the models that based on hierarchy of effects models. hierarchy of effects models are able to explain internal psychological factor that influence the process of decision making of consumers by making tracks and phases on that process. These models explain that "effects models help to analyze the influence of message and structure goals" (Wells et al, 1998).

In this research, only six main phases of IP model that are used, namely, exposure, attention, comprehension, agreement, retention, and purchase intention. This is based on the research conducted by Sengupta (2005). He connected information processing models with advertising performance, meanwhile, the purchase behavior variable in McGuire's IP models (1978) is replaced by purchase intention because it should be in line with the influenced variable, namely, purchasing decision in which the replacing is based on consumer decision model stated by Howard, J and Sheth, J (1988) in zuraida's writing (2001) in which it is proven that purchase intention influence the real purchasing.

## METHODOLOGY

This research is descriptive and verificative. The descriptive research is a research that aims to acquire descriptions of characteristics of a variable. Verificative research is a research that aims to find out the relation between variables through a hypothesis testing.

Analysis unit in this research is the Internet users and food industry in Indonesia, it means this research uses consumers and producers as observation unit. From the time horizon, this research begins with preliminary research cross sectionally, that is information from population is collected empirically, in purpose to find out from the studied object (Sekaran, 2000, Boudreau et al, 2004). Further, time series research is conducted to measure the distinction among food industries performances in Indonesia.

### The Operating of Preliminary Research Variables

The type of data required for this research is data that directly from the field (primary), and every variable tested needs emphasis in definitive

### The Source of Data and Determination of Data Information

The object of the research is divided into two objects: the first one is the object of preliminary research that is about the advertising of food industry products in Indonesia especially, Jakarta, Bogor, Depok, Tangerang, and Bekasi. Sample choosing is done by exploring data, and observing and interviewing the practitioners in Internet fields to collect various information related to the scope of Internet advertising.

## RESEARCH DESIGN

Considering this purchase decision is a variable used to measure the advertising performance and the influence the e-mail marketing, the model

comprehension related to the topic of the research. Therefore, conceptually the confirmation of definition and the operating of every variable can be stated as below:

1. Advertising Program Variable (AP); This variable consists of four indicators namely, Market, Mission, Message, and Medium.
2. E-mail marketing variable (EM); *E-mail marketing* is included into the group of Direct Marketing. This variable consists of two indicators namely, promotional e-mail and E-mail service related.
3. Information Processing Variable (IP); it reflects how the behavior of Internet users is in processing the information. This process is included into invisible behavior for other people. This variable consists of six indicators, namely, exposure, attention, comprehension, agreement, retention and purchase Intension)
4. Purchasing decision variable (PD), it reflects how the behavior of Internet users is in making decision on acquired advertising information. This variable consists of six indicators, namely, range, attention, comprehension, interaction, networking, and purchasing.

suggested by Chapy et.al (1997) need to be modified into range, attention, comprehension, interaction, networking, and purchasing.

In this research model, the advertising program on the Internet and simultaneously e-mail marketing influence advertising information processing of the Internet users. This processing influences the purchasing decision. The Internet advertising program and simultaneously e-mail marketing directly influence the purchasing decision, and indirectly influence it (through information processing). The measurement of advertising performance program on the Internet, e-mail marketing, advertising information processing, and purchasing decision through Internet in this model are measured from consumers' perception.

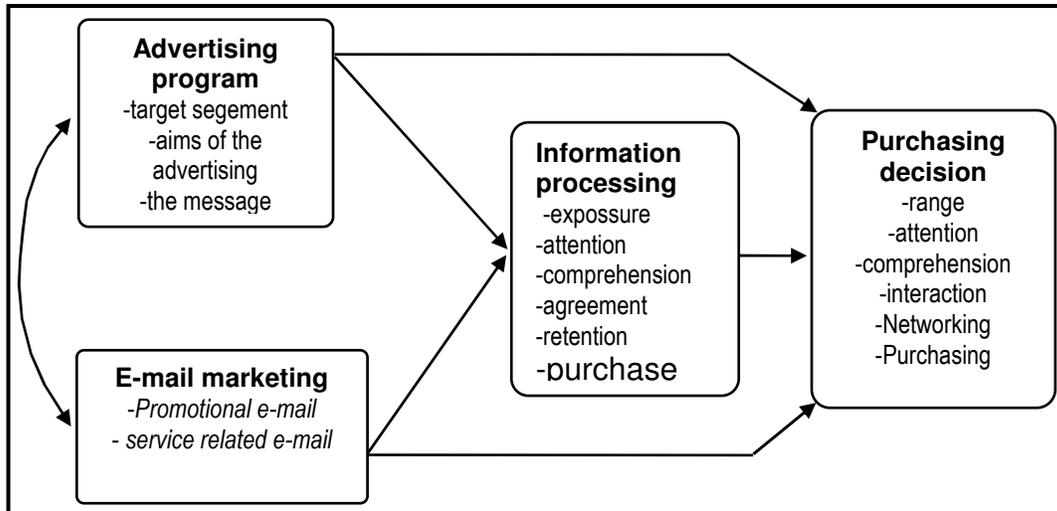


Figure 2 Research Model Used

The empiric test of the influence of Internet advertising program and e-mail marketing on the information processing and purchasing decision of Internet users in Indonesia. The empirical testing method is done by structural equation modelling (SEM) approach toward primary data of the result of questionnaires that are given to 340 Internet users in Jakarta, Bogor, Depok, Tangerang, and Bekasi.

## THE RESULT OF THE RESEARCH

The Influence of Internet Advertising and E-mail Marketing on Information Processing of Food Industry Products Advertising in Indonesia and Its Implication toward Purchasing Decision.

The hypothesis testing is done by using Structural Equation Model (SEM) concept with help from computer program AMOS ver. 4.0. The testing of pattern and structure of relation between variables is don simultaneously and graded in line with the goal and hypothesis of the research. The testing of hypothesis done in this research is:

- The influence of advertising program and e-mail marketing variables on the advertising information processing. (H<sub>1</sub>)
- The influence of advertising program and e-mail marketing variables on purchasing decision (H<sub>2</sub>)

- The influence of information processing on variable on purchasing decision (H<sub>3</sub>)

The relation patterns between variables in this research is arranged and represented as graded and structured. The pattern and structure of the relation of each variable are

1. Advertising program and e-mail marketing directly influence the advertising information processing.
2. Advertising program and e-mail marketing directly influence on the purchasing decision.
3. Advertising program and e-mail marketing indirectly influence the purchasing decision (through the information processing variable).

The result of elaboration that has been done before indicates that advertising program and e-mail marketing influence the purchasing decision both directly and indirectly . (Through the information-processing variable)

The result of hypothesis is done by comparing the probabily value (p), its is stated significant if  $p \leq 0.05$  and *critical ratio* (C.R)  $\geq 1.96$  (Ferdinand, 2002). *Degree of freedom* (df) = 183, the t tabel ( $\alpha = 5\%$ ) is 1.96. The hypothesis testing is displayed on the table below:

**Table of Hypothesis Testing**

INFLUENCE			Standardized Regression Weight	C.R	Prob	NOTIFICATION
Advertising Program (AP)	->	Information Processing (IP)	0.500	2.284	0.022	Significant
E-mail Marketing (EM)	->	Information Processing (IP)	0.247	1.832	0.067	Insignificant
Advertising Program (AP)	->	Purchasing Decision (PD)	-0.202	-1.427	0.154	Insignificant
Email Marketing (EM)	->	Purchasing Decision (PD)	0.644	3.465	0.001	Significant
Information Processing (IP)	->	Purchasing Decision (PD)	0.381	1.889	0.059	Significant

**The Influence of Internet Advertising Program and E-mail Marketing of Food Industry Product in Indonesia on the Information Processing.**

The first hypothesis testing is to prove the influence of Internet advertising program and e-mail marketing on the information processing of advertising. The result of the first hypothesis using the structural equation model shows that advertising program directly influences on the information processing as much as 0.500, with level of significance 5% (P-value is 0.022 or  $\leq 0.05$ ), and *critical ratio* (CR) value is 2.284 ( $CR \geq 1.96$ ). Meanwhile, e-mail marketing also directly influences the information processing as much as 0.247, with level of significance 5% (P-value is 0.067 or  $\geq 0.05$ ), *critical ratio* (CR) value is 1.832 ( $CR \leq 1.96$ ). Based on that, it can be concluded that advertising program of San Miguel Indonesia

significantly has positive influence on the information processing, however, the e-mail marketing is proven not to have significant influence on the information processing. This is because there is no serious responses on the organization of incoming e-mail to food industry in Indonesia, so according to the consumers or prospective consumers, they have less information about food industry products.

**The influence of Internet advertising program and e-mail marketing of Food Industry in Indonesia on Purchasing Decision**

The second hypothesis testing using SEM is done to prove the influence of Internet advertising program and e-mail marketing on the purchasing decision. The description of the testing result completely displayed on the table below:

Table: The significance of the influence of Internet advertising program and e-mail marketing on purchasing decision.

Notification	Direct Influence	Indirect Influence	Total Influence	CR	P-value 5%
Advertising Program → Purchasing Decision	-0.202	0.1905	-0.0115	1.957	0.050
E-mail Marketing → Purchasing Decision	0.644	0.094	0.7381	2.990	0.003

The first testing result shows that the direct influence of advertising program on the purchasing decision is -0.202, and the indirect influence is 0.1905 (0.500 x 0.381). The level of significance is 5% (P-value is 0.050 or  $\leq 0.05$ ), and *critical ratio* (CR) value is 1.957 (CR  $\geq 1.96$ ). Based on that it can be concluded that advertising program significantly influence the purchasing decision directly. This shows that the Internet advertising program has not been able to influence the purchasing decision of consumers and prospective consumers that have visited the food industry directly and indirectly. This is because one or some of elements in advertising program namely, message, media, budget, and the measurement of food industry in Indonesia has not been designed well to influence the purchasing decision.

E-mail marketing directly influence on the purchasing decision as much as 0.644, on the other hand the indirect influence as much as 0.094 (0.247 x 0.381). The level of significance is 5% (P-value is 0.003 or  $\leq 0.05$ ), and *critical ratio* (CR) value is 2.990 (CR  $\geq 1.96$ ). Based on that, it can be concluded that e-mail marketing significantly influence the purchasing decision both directly and indirectly.

### The Influence of information processing on Purchasing Decision

The third hypothesis testing is done to prove The Influence of information processing on purchasing decision. The result shows that information processing directly influence on purchasing decision as much as 0.381, with level of significance 5% (P-value is 0.059 or  $\geq$

0.05), and *critical ratio* (CR) value is 1.889 (CR  $\leq 1.96$ ). Based on that, it can be concluded that information processing of consumers or prospective consumers is not proven to have positive influence on purchasing decision.

### CONCLUSIONS

First, the result of the analysis and discussion shows that based on the point of view of Internet users, Internet advertising program of food industry products in Indonesia significantly has positive influence on the information processing, in contrast, e-mail marketing is not proven to have real influence on information processing. This is because the incoming e-mail to the food industry does not have serious response from consumers.

Second, the perception of Internet users about Internet advertising program and e-mail marketing done by food industry in Indonesia shows that Internet advertising program is proven does not influence the product purchasing decision of consumers or prospective consumers that have visited the food industry websites both directly and indirectly. This is because one or some of elements in advertising program namely, message, media, budget, and the measurement of food industry in Indonesia has not been designed well to influence the purchasing decision.

Third, the result shows that information processing of consumers or propective consumers of food industry in Indonesia is not proven to have influence on the purchasing decision. This is because e-mail marketing of

food industry does not influence the information processing of advertising, besides that the advertising program has negative influence on the purchasing decision of consumers. If the two variables is improved, the information processing of advertising of food industry in Indonesia will be better and in the end it will increase the purchasing decision,

## SUGGESTIONS

First, the result of this reserach generally shows that Internet advertising program and e-mail marketing of food industry product in Indonesia is not proven tobe able to influence the purchasing decision of consumers. Therefore, it is important to do some improvement to advertising program elements namely, the goal, messages, media, fund, and measurement by food industry in Indonesia.

Second, the result of testing and analysis shows that information processing does not have positive influence on purchasing decision. Based on that, in designing advertising program e-mail marketing, it is important tonotice that the design should aim to influence the process of advertising expsossure, to get consumers attention, to make the comprehension easier for the consumers, to get agreement from the consumers on the advertising, atas iklan yang dipaparkan, to suport consumers, so they will be able to remember the advertising and to push the consumers' purchasing intention.

## REFERENCES

- (1) Andam, Zorayda Ruth. May 2003. "E-Commerce and E-Business." e-ASEAN Task Force, UNDP
- (2) APJII. 2005. "Statistik Asosiasi Penyelenggara Jasa Internet." [www.apjii.or.id](http://www.apjii.or.id)
- (3) Bergkvist, Lars. 2000. "Advertising Effectiveness Measurement: Intermediate Constructs and Measures." Dissertation EFI, Stockholm School of Economics
- (4) Boon, Annemarie. 2005. "Perceptions of Business Costumers on Promotional E-Mail : Investigating its Influence on the

- Relationship Quality." Master Thesis, Vrije Universiteit, Amsterdam.
- (5) Boudreau, Claude Marie, David Gefen, and Dietmar Straub. 2004. "Validation Guidelines for Information System Positivist Research." Communication of the Assosiation for Information System, Vol.13.
- (7) BPS (Biro Pusat Statistik). 2002. "Proyeksi Penduduk Indonesia per Propinsi 2000-2010."
- (8) Champy, James, Robert Buday, and Nitin Nohria. 1997. "The rise of the Electronic Community." in Chandrasekar Subramaniam, Michael J. Shaw and David M. Gardner. "Product Marketing On The Internet." University of Illinois at Urbana-Champaign, Urbana, IL, USA
- (9) Clark, H. H. and D. Wilkes-Gibbs. 1986. "Referring as a Collaborative Process." Cognition
- (10) Clark, H. H. and S. E Brennan. 1991. "Grounding in Communication." on L.B. Resnick, J.M. Levine, and S.D. Teasley (Eds.). "Perspectives on Socially Shared Cognition." American Psychological Association, Washington D.C
- (11) Consterdine, Guy. 2005. "Routes to Success for Consumer Magazine Websites." International Federation of the Periodical Press Survey.
- (12) Engel, J.F., Kollat, D.T, and Blackwell, R.D. 1968. "Consumer Behavior." New York: Holt, Rinehart and Winston
- (13) Han, Peter K, and Vasu Reddy. 2000. "Optimize Your E-mail Marketing Campaigns." (14) Marketing Management, in Boon, Annemarie,2005
- (15) Howard, J. and Sheth, J. 1968. "A Theory of Buying Behavior." in H.H. Kassarian and T.S. Robertson (eds.), 1968, "Perspectives in Consumer Behavior" .
- (16) Jupiter Research. 2001. "The Automotive Market in Europe." [www.jupiterresearch.com](http://www.jupiterresearch.com)
- (17) Kalyanam, Kirthi, and Shelby McIntyre. 2002. "The E-marketing Mix: A Contribution of the E-tailing Wars." Journal of the Academy of Marketing Science, 30 (4)

- (18) Kotler, Philip and Kevin Lane Keller. 2005. "Marketing Management." 12th Edition, Prentice Hall, Inc. A Pearson Education Company, Upper Saddle River, New Jersey
- (19) Lincoln, James E, and Bruce G Vanden Bergh. 1990. "An Information Content Comparison of Magazine Ads Across a Response Continuum from Direct Response to Institutional Advertising." Journal of Advertising, 19 (2), 23-29.
- (20) Martin, B. A. S., Van Durme, j., Raulas, M., and Merisavo, M. 2003. "Email Advertising: Exploratory Insights from Finland." Journal of Advertising Research, 43(3)
- (21) Martin, Laura. 2005. "Internet Advertising Outlook: Which Old-Media Silos Lose?" Equity Research, Soleil Sales and Trading, [www.soleilgroup.com](http://www.soleilgroup.com)
- (22) McGuire, W. J. 1968. "Personality and Attitude Change: An information-Processing Theory." in Greenwald, A.G., Brock, T.C., and Ostrom, T.M (Eds.).
- (28) Rettie, Ruth. 2002. "Email Marketing: Success Factors." Kingston University -Kingston Business School, Kingston Hill, Surrey
- (29) Rossiter, John R. and Larry Percy. 1998. "Advertising Communications and Promotion Management." International Edition: McGraw-Hill.
- (30) Sekaran, Uma. 2000. "Research Method for Business." International Edition, Prentice Hall, USA.
- (31) Sengupta, Jaideep. 2005. "Understanding Consumers." HKUST Business School, Hongkong
- (32) Song, Young-Bean. 2001. "Proof That Online Advertising Works." Atlas Institute, Seattle, WA
- (33) Sularto, Lana. 2007. "Pengaruh Pelaksanaan Program Periklanan Di Internet Dan "Psychological foundations of attitudes." New York: Academic Press.
- (23) McGuire, W. J. 1976. "Some Internal Psychological Factors Influencing Consumer Choice." Journal of Consumer Research, 2 (March)
- (24) McGuire, W. J. 1989. "Theoretical foundations of campaigns." in Rice, R. E., and Atkin, C. K. (Eds.). "Public Communication Campaigns." (2nd ed.) Newbury Park, CA: Sage Publications.
- (25) McGuire, W. J. 1999. "Constructing social psychology: Creative and critical processes." Cambridge: Cambridge University Press.
- (26) Moser, H. Ronald, Ronald C. Petty and Brian Webb. 2002. "Combating Post-Purchase Dissonance: Methods To Alleviate Dissonance In Major Purchases." Middle Tennessee State University
- (27) PPPI (Persatuan Perusahaan Periklanan Indonesia). 2005. "Indonesia Media Guide 2005." Pemasaran Melalui E-Mail Terhadap Pemrosesan Informasi Periklanan Serta Implikasinya Terhadap Keputusan Pembelian Produk Di Wilayah Jabodetabek", Disertasi, Universitas Gunadarma, Jakarta
- (34) Sumarwan, Ujang. 2003. "Perilaku Konsumen : Teori and Penerapannya dalam Pemasaran." Ghalia Indonesia, Jakarta.
- (35) Wells, W., Burnett, J., and Moriarty, S. 1998. "Advertising Principles and Practice (4th ed.)" Upper Saddle River, NJ: Prentice-Hall.
- (36) Zuraida, Lukia and Uswatun. 2001. "Analisis Efektifitas Iklan Rinso, Soklin dan Attack Dengan Menggunakan Consumer Decisionmodel (CDM)." Usahawan No, 04 TH XXX APRIL