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**Analysis The Effect Of Environmental Concern And
Green Advertising To Green Purchasing In Palembang
City**

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Abstract

This study aims to determine the effect of environmental concern and green advertising to consumer behavior in purchasing green products (environmentally friendly bag). The study was conducted by distributing questionnaires to 200 respondents, which already have purchase and know about new government regulations that require buying a plastic bag that used in large retail. This study conducted in some major retail in Palembang (Hypermart, Diamond, and Carrefour). This study uses Structural Equation Modeling (SEM) with AMOS program to analyze the data. The results showed that green advertising significantly influence behavior change and environmental concerns significantly influence purchase decisions with the effect of changes in consumer behavior on purchasing decisions by 74.0 % and the balance of 26.0 % is the influence of other factors not examined in this research.

Keywords: Environment Concern, Green Advertising, Costumer Behavior, Green Purchasing.

INTRODUCTION

The environment is a combination of natural resources such as land and water, energy of the sun and the flora and fauna that live on the surface of the land or in the sea. The environment can also be interpreted to everything that exists around the man and affect the development of human life (Biology online, 2008) in the human being is developing in a place or space can also referred to as

environment. The environment is the unity of space with an object, the power state and living creatures including human beings and behavior that affect the nature, survival and human welfare itself (ACT Of Indonesia Number 32 2009 Protection and Management of Environment).

People who live in an environment and grow in the neighborhood will take advantage of the resources in their environment to meet the needs and improve the quality of life. The utilization of natural resources to excessive in order to fulfill the needs of people will result in the destruction of the environment, this triggered the awareness of the destruction of the environment or Environmental Awareness (Environment Awareness Article, 2010). Environmental Awareness is awareness of the environment that continues to have been destroyed as a result of the utilization of natural resources or pollution (Dictionary of the English Language Edition Of The Fifth, 2011).

Based on the awareness of the environment itself society will begin to understand and care about the environment or environmental concern. According to Winda (2013), concern for the environment is a form of the understanding of the environment that was planted in the community, such concern in the form of positive behavior. To see the level of environmental awareness used dimensions from the research by P.Wesley Schultz (2001) where environmental awareness or environmental concern using 3 dimension namely egoistic concern, altruistic concern, and biospheric concern.

Indonesia has some issues related to the environment, environmental problems Indonesia occurred in many sectors that have the cause and effect of each. In this research will focus on environmental problems Indonesia on the plastic waste sector that has been troubling, where The Ministry of Environment and Forestry (MNF) said that Indonesia is rated both the world as producer of plastic waste into the sea (Wahyuni 2016). MNF list results from the plastic 100 member of Indonesian Retailers Association (IRA) within one year reached 10,95 million waste sheet plastic bag.

The Director General of Garbage Management and Waste of The Ministry of Environment and Forestry, Mintrasih said will target the reduction of plastic waste up to 1.9 million tons in 2019. Indonesia is rated second in the world after China in producing plastic waste fishing of 182.2 million tons is then followed by the Philippines, Vietnam and Sri Lanka on the third sequence of the fourth and fifth. The question of plastic waste is triggered the Indonesian government began to implement a paid plastic bag, where plastic bags are no longer given to the public for free. When shopping in a traditional market and also modern retail such as supermarkets and mini market, community asked to pay 200 rupiah for each plastic bag used. The policy is tested start from 21 February until May 31 2016.

With the existence of this environmental problems, awareness of environmental awareness stirred concern itself on The company and consumers (Bhatia and Jain, 2013). In accordance with the research Erbaslar (Boztepe 2012) that the company should be responsive to the awareness of the environment in production activities. The responsibility of the manufacturer is to produce green product or environment-friendly products, namely the products that are not poisonous can be used again or repeatedly, can recycling, produced with natural ingredients and safe for the environment (Suki, 2013) basically environment-friendly products also produced a company to get a positive image of the customers to introduce environmental friendly products dikenalah term green advertising or advertising green. An activity to promote explicitly or implicitly the attitude of awareness of the environment to improve environmental problems (Fowler, 2012), with the dimensions of the information environment friendly, life style and corporate image (Karna, 2009).

With the existence of the green advertising it can be said that consumers are aware of environmental friendly products or can be called also Awareness of green product or awareness of the existence of green advertising. An example of environmental friendly products among others is: Carrefour Green bag, in accordance with the issue of plastic bags paid, carrefour apply Green bag for its customers since 2012 so. Customers can use the bag on when shopping so that the customer will not get goods belanjannya plastic wrapped in in general and the customers are recommended to bring him back if you want to buy. Not only Carrefour, the results of the interview writer with a number of retail store employees, some large retail in Palembang is actually already selling bags which can be used when shopping as Hypermart, Diamond, Alfamart and Indomaret outlets sell similar bags with the cheap price and affordable.

Environmental Awareness and green advertising that happened in Indonesia can trigger a change in the behavior of Indonesian society for the environment, from concerned for the environment such as in this research is still want to use the plastic parts in daily, become will not use the plastic in his daily. According to the Health Belief Model (HBM) (Sharma dn Romans, 2012) a change in the behavior of the individual can occur as a result of a belief in the danger that threatens the life of the individual itself. Nisbet and Gick (2008) added that as a person change his behavior, someone must feel directly the threat to his life and see how the threat will be triggered the an action to reduce the threat. Changes in consumer behavior toward the environment has several dimensions namely, Unfreezing, Moving, and Refreezing (Kritonis, 2005).

Changes in behavior that occurs will trigger the purchase of bags that can be used to return to the reduction of the use of plastics is harmful to the environment (green puchasing), consumers will adapt with the situation of the threat of salvation happens to himself and consider environmental issues when they purchase action, after with research Junaedi (2005).

The decision of the purchase of environmentally friendly goods also can be described by the theory of problem solving as said by Peter and Olson (2010), among others;

- Optimize Satisfaction
- Prevention, Prevention
- Resolves Conflict, conflict resolution
- Escape, Fugitive
- Maintenance, Improvement

De Paco said that the behavior of consumers influenced also by consumer awareness of their environment (De Paco et al. 2014). And the effects of green advertising of consumer purchasing behavior by (Dalafrooz, Taleghani, Nouri 2014) where green advertising has had a significant influence positively to consumer purchasing behavior. With the existence of the issue of awareness and concern to the environment that is done by the Government of Indonesia regarding the experiment against paid plastic and green advertising then conducted research on the analysis of consumer behavior changes that result in the possibility of green purchasing in the Indonesian community in Palembang. Then in doing research with the title of the analysis of the influence of the Environment Concern and Green Advertising toward Green Purchasing in Palembang. (Research about consumer behavior changes as a result of environmental awareness in Indonesia with the use of paid plastic and green advertising against the purchase of green products in Palembang).

LITERATURE REVIEW

Environmental Concern

Concern for the environment can be reviewed with two main aims: First, in terms of the availability of natural resources, until assessed the sources of economic benefit to dug and then used as a source of income to finance the activities of its construction. Second, if the wealth owned indeed limited and economic does not benefit for dug and processed, so for the next what strategies that need to be taken to meet the needs and the demands of its construction the nation concerned (Ramly, 2008).

According to Wesley Schultz (2001), Environmental Concern has three dimensions; That is; egoistic concern is the concern that constituted by the feelings of self, where a person will be concerned for himself in danger (me, my health, my life style, my future); altruistic concern is the concern that constituted the feelings toward others outside ourselves, where a person concerned for others in danger (all people, children, my children, people in my country); and biospheric concern is the concern based on a feeling of living creatures other than man, where a person concerned because other living creatures in danger (referencelist, marine life, animals, birds).

Green Advertising

Green advertisement is the promotion or advertisement in explicitly or implicitly promote the attitude of awareness of the environment and suggest behavior that can improve environmental problems (Fowler , 2012). Green advertising consists of all activities designed to meet the needs of the man with the minimize the impact to the environment. While according to Karna (2009), green advertising is advertising that appears to be environmentally. As an example of the advertisements are oriented toward the environment can contain an attribute with the green color, natural scenery, eco-label, statement of concern for raw materials, the process is environmentally friendly and can be recycled.

In addition because explains that an advertisement can be said environmentally if they meet one or more of the following criteria; 1). Implicitly or explicitly shows the relationship between the products or services and biophysical environment. For example mentions the products advertised do not contain dangerous ingredients that threaten the nature. 2). Promote a lifestyle that environmentally, for example teach consumers to throw away the packaging that is used to cast into a dustbin, and 3). Presenting a corporate image that contains environmental responsibility. For example raises the ISO 14001 in commercial (Karna, 2009).

The Theory of Change Consumer's Behavior

There are three major phases in the process of change according to Kurt Lewin (force-field theory). The phase are;

1. Unfreezing, the stage where there is a changing need, as in this study when people are aware of the dangers of plastic waste in Indonesia, then began to switch to reusable shopping bags to meet the needs of consumers, resulting in a strong motivation to change.
2. Change; this stage consumers diagnose the problem that is with a bag or shopping bag that can be reused, can reduce the amount of plastic waste in Indonesia and more environmentally friendly than using cheap plastic that causes plastic waste. It then sets goals for change so that it begins moving from the status quo to a new stage,
3. Refreezing; this stage is achieved by changing behavior such as this research where consumers who use reusable plastic, do not leave cheap plastic, but still use it for certain purposes but small scale

Purchasing Decision

In this study used purchasing decision theory about problem solving according to Peter and Olson (2010) among others;

1. Optimize satisfaction, when consumers decide to buy a product or goods due to the desire to satisfy themselves,
2. Prevention, consumers decision due to unwillingness becomes dissatisfied against a goods,
3. Resolves conflict, the decision of the consumers in selecting goods or products due to the desire to balance the disadvantages and the advantages of a goods,

4. Escape, when consumers decided to purchase due to the desire to avoid loss in the purchase of other brands, and
5. Maintenance, the decision of the consumers in selecting goods to satisfy his desire with minimal effort.

METHODS

The research design is descriptive research. This research designed to understand the relationship between exogenous variables which consist of environment concern and green advertising with endogenous variables which consist of consumers behavior changes and green purchasing. This research used primary data, namely a data obtained directly from the field through the observation and survey with questionnaire.

The population in this research is the citizen of Palembang City that know and see about the green advertising and ever to buy and know about the paid plastic regulation and the sample of this research is 200 respondents. Sampling technique is used with non probability sampling. The requirements of the sample is required the respondents ever buy and know about the paid plastic rules in some large retail in Palembang (Hypermart, Diamond, Carrefour). The method of data analysis used descriptive analysis and Structural Equation Modelling (SEM).

FINDINGS

Descriptive Analysis

The result of this research known that the majority respondent is a man with dominant age range between 23 years old until 27 years old dan dominant education level is bachelor. As for from jobside as dominant responden is private employees. Hypothesis testing used Structural Equation Modeling (SEM) with alpha (α) level at 5%. Table 1 shown the results of average or mean calculation of research indicators for each variable. Table 1 shown the totality of the result of structural equation modeling of research variables.

Table 1. Mean Indicator

No	Variable	Indicator	Code	Mean	
				Indicator	Grand Mean
1	Environmental Concern	Egoistic Concern	X1.1	3.67	3.77
		Altruistic Concern	X1.2	3.73	
		Biospheric Concern	X1.3	3.93	
2	Green Advertising	Environmentally Friendly	X2.1	3.66	3.69
		Lifestyle	X2.2	3.54	

		Corporate Image		3.87	
3	Consumer Behaviour Change	Unfreezing	X2.3	3.47	
		Moving	Y1.1	3.56	3.59
		Refreezing	Y1.2	3.75	
		Optimizing	Y1.3	3.56	
		Satisfaction	Y2.1		
4	Purchasing Decision	Prevention	Y2.2	3.56	
		Resolve		3.69	3.54
		Conflict	Y2.3		
		Escape	Y2.4	3.51	
		Maintenance	Y2.5	3.39	

Source : Primary data processed 2016

According to table 1 known that Biospheric Concern indicators got the highest average value (3.93) from environmental concern variable. Corporate image indicator got the highest average value (3.87) from green advertising variable. Refreezing indicator got the highest average value (3.75) from consumers behavior change. And the last resolve conflict indicator had got the highest average value (3.69) from purchasing decision variable.

Hypothesis Testing

The influence of Environmental Concern And Green Advertising to Consumer Behavior Changes

The hypothesis that will be tested is the influence of the environmental concern and green advertising to changes in consumer behavior. The influence of environmental concern and green advertising to Changes Consumer behavior shown in the table 2 below.

Table 2. The influence of Environmental Concern and Green Advertising To Changes in consumer Behavior

The influence	Path Coef.	t-count	t-table	Explanation	R-Square
Environmental Concern	0.094	1.235	1.96	H0 Accepted	0.663
	0.762	7.988	1.96	H0 Rejected	

Green Advertising

Source : Primary data processed 2016

Based on the value of $R^2 = 0,663$ can be known Environmental Concern and Green Advertising gives the influence directly to changes in consumer behavior

of 66,3%. This means that the Environmental Concern and green advertising gives the influence of 66,3% to changes in consumer behavior if there is no other variables noted. Then test the significance of the influence of partial Environmental Concern and Green Advertising to changes in consumer behavior. The following is presented test results the significance of the hypothesis through the hypothesis of statistics as follows.

Partial hypothesis 1:

$H_0.\gamma_{11} = 0$: Environmental concern have no effect Significantly on the change of the behavior of consumers

$H_0.\gamma_{11} \neq 0$: Environmental concern have significant effect to change the behavior of consumers.

Based on the table 2, indicates that the path of 0,094 coefficient value with the value of tcount of 1.235. The value of the t value of the statistics obtained (1.235) smaller than ttable (1.96). Thus based on the test results it can be said that the Environmental Concern or Environmental Awareness did not affect the significant impact on the change of Consumer behavior.

Partial hypothesis 2:

$H_0.\gamma_{11} = 0$: Green Advertising did not affect the significant impact on the change of the behavior of consumers;

$H_0.\gamma_{11} \neq 0$: Green Advertising affect the significant impact on the change of consumer behavior.

Based on the table 2, indicates that the path of 0,762 coefficient value with the value of tcount of 7.988. The value of the t value of the statistics obtained (7.988) greater than ttable (1.96). Thus based on the test results it can be said that the green advertising significant influence on the change of consumer behavior.

The Influence of Enviromental Concern and Green Advertising to Purchasing Decision

The hypothesis that will be tested is the influence of Environmental Concern and Green Advertising to purchasing decisions. Causation relationship between Environmental Concern and Green Advertising to the purchase decision is shown in the Table 3 below.

Table 3. The Influence of Environmental Concern and Green Advertising to Purchasing Decision

The Influence	Path Coef.	t-count	t-table	Explanation	R-square
Environmental Concern	0.110	2.084	1.96	H ₀ rejected	0.740
Green Advertising	-0.096	-0.844	1.96	H ₀ accepted	

Source : Primary data processed 2016

Based on the value of $R^2 = 0,740$ can be known Environmental Concern or environmental awareness and Green Advertising or green advertising directly to influence the purchase decision of during%. This means that the Environmental Concern and Green Advertising give effect during the percent against the purchase decision if there is no other variables noted. Then test the significance of the influence of partial Environmental Concern and Green Advertising against the purchase decision. The following is presented test results the significance of the hypothesis through the hypothesis of statistics as follows.

Partial hypothesis 1:

H₀. $\gamma_{11} = 0$: Environmental Concern does not affect significantly to purchase decision;

H₀. $\gamma_{11} \neq 0$: Environmental Concern influence significant impact on purchasing decisions.

Based on the Table 3 , shows that the path of 0,110 coefficient value with the value of t-count of 2.084. The value of the t value of the statistics obtained (2.084) greater than ttable (1.96). Thus based on the test results it can be said that Environmental Concern influence significant impact on purchasing decisions.

Partial hypothesis 2:

H₀. $\gamma_{11} = 0$: Green Advertising did not affect significantly to purchase decision;

H₀. $\gamma_{11} \neq 0$: Green Advertising affect the significant impact on the purchase decision.

Based on the Table 3 , shows that the value of the path of -0.096 coefficient with the value of thecount of -0.844 t. The value of the t value of the statistics obtained (-0.844) smaller than t-table (-1,96). Thus based on the test results it can be said that Green Advertising did not affect significantly to purchase decision.

The Influence of Changes in Consumer Behavior Toward The Purchasing Decision

The hypothesis that will be tested is the influence of changes in consumer behavior toward purchasing decisions. Causation relationship (influence) changes the behavior of Consumers against the purchase decision is shown in the table below.

Table 4. The influence of Changes in Consumer Behavior to Purchasing Decision

The influence of	Path Coef.	t-count	t-table	Explanation	R-Square
Changes in Behavior Consumers	0.879	6.436	1.96	H0 Rejected	0.740

Source : Primary data processed 2016

Based on the value of $R^2 = 0,740$ can be known Changes Consumer Behavior provide the influence directly to the purchase decision of during 74.0%. This means that the changes in consumer behavior during the influence percent to the purchase decision if there is no other variables noted. Then test the significance of a partial influence behavior changes to consumer purchasing decisions. The following is presented test results the significance of the hypothesis through the hypothesis of statistics as follows.

Partial hypothesis 1:

$H_0: \gamma_{11} = 0$: Changes Consumer Behavior did not affect the significant impact on the purchasing decision;

$H_0: \gamma_{11} \neq 0$: Changes Consumer Behavior significant influence on purchasing decisions.

Based on the Table 4 shows that the path of 0.879 coefficient value with the value of t-count of 6.436. The value of the t value of the statistics obtained (4.258) greater than ttable (1.96). Thus based on the test results it can be said that the Environmental Concern influence significant impact on purchasing decisions.

Discussions

The results of the hypothesis test 1 (H1) that tested is the influence of environmental concern and green advertising to changes in consumer behavior known that Environmental Concern and Green Advertising gives the influence directly to changes in consumer behavior and need to be done any test. In the review of the significance of the influence of the first partial said that environmental concern did not affect the significant impact on the change of Consumer behavior. This is in accordance with the research of Andrew &

Franky (2011) where there was no significant influence of environment behavior and concern with a change of behaviors simultaneously. But it does not mean that each case consumers, because on research Francis wong & Lee (2012) and Picualy & Hermawan (2010) environmental awareness of consumers is reflected in the consumer attitude toward their behavior on the environment. So it can be concluded that a concern for the environment in every customer may not be able to change the attitude of consumers in each behavior toward the environment.

In the review of the significance of the influence of the second partial said that the green advertising affect the significant impact on the change of consumer behavior this in accordance with the research Sinnapan and Rahman (2011) that changes an attitude toward the environment occurs as a result of the knowledge and understanding of the environment is caused by the green advertising which provide insights into green.

The results of the hypothesis test 2 (H2) that tested is the influence of environmental concern and green advertising against the purchase decision. environmental concern and green advertising gives the impact of purchasing decisions if there is no other variables noted. It is done test the significance of the influence of partial environmental concern and green advertising to purchasing decision. The first partial test result is environmental concern influence significant impact on purchasing decisions. This is in accordance with the research Waskito and Harsono (2012) where simultaneously environment should have and concern influential significant on the purchase of environmentally friendly products in general or specifically.

The results of the partial testing both said that the green advertising did not affect the significant impact on the purchasing decision. This is in accordance with the research Cheah (2009), where that affect the purchase of green products is the image of the self and the influence and social orientation. Thus the marketer must consider this factor in implementing the right promotion in attract customers buy green products they sell.

The results of the hypothesis test 3 (H3) that tested is great influence behavior change Institutionalization indicators against the purchase decision known Changes in consumer behavior provide the influence directly to the purchase decision of during percent then based on the results of the test can be said that the changes in behavior consumers significant influence on purchasing decisions. The results of this research in accordance with the research M. Rizzwan, M . Imran, A. Qayyum, M. Yousaf, S. Qaiser, S. Afzal and N. Fatimah (2012) and Pitasari & Ariastita (2012) where behavior changes affect the significant impact on purchasing decisions and consumer shopping patterns.

The results of this study were also similar to the results of the Monitoring and evaluation of the Ministry of the Environment and Forestry (KLHK), where

visible decrease the use of plastic bag of 25-30 percent during the first three months of the trial at the end of May 2016, where 87.2 percent of society expressed its support and 91,6 percent willing to bring their own shopping bag from the house. (Praditya 2016)

CONCLUSION

Based on the results of the calculation and analysis that has been done in previous chapters, then obtained some conclusions, such as, the factor environment concern does not affect a significant changes in behavior, while other factors green advertising significant effect of changes in behaviour, the factor environment concern affect the significant impact on the purchase decision, while green advertising did not affect significantly to purchase decision and the influence of changes in consumer behavior toward the purchase decision is 74% and the rest of 26,0% is influenced by factors outside the research model.

REFERENCES

- Alniacik, U. dan Yilmaz, C. 2012. The Effectiveness of Green Advertising: Influences of Claim Specificity, Product's Environmental Relevance and Consumers Pro-Environmental. Turkey Journal Vol. XIV No. 31.
- Azizan, S.A.M. and Suki, N.M., 2013. Consumers Intention to Purchase Green Product: Insights From Malaysia. World Applied Sciences Journal.
- Biology Online. 2008. Environment. www.biologyonline.org, accessed on March 03, 2016.
- Bhatia M & Jain A. 2013. Green Marketing: A Study of Consumer Perception and Preferences in India, 1(36). Electronic Green Journal.
- Boztepe. A. 2012. Green Marketing and Its Impact on Consumer Buying Behavior, 5(1). European Journal of Economic and Political Studies.
- Cheah, C.M. 2009. A Study on Consumers Green Purchasing Intention, Masters Thesis, College of Business, University Utara Malaysia, Malaysia.
- Delafrooz, N. Taleghani, M. and Nouri, B., 2014. Effect of green marketing on consumer purchase behavior. QScience Connect.
- Dictionary of the English Language Edition Of The Fifth, 2011
- Fowler . 2012. It Ain't Easy Being Green. The Journal of Advertising Vol. 20, 119-132.
- Husein, H.M., 1993. Environment: Issues of Management and Law Enforcement. Bumi Aksara.
- Junaedi, M.F Shellyana. 2005. The Effect of Environmental Awareness On The Purpose Of Buying Green Products: Consumer Behavior Study Behavior. Atma Jaya University. Yogyakarta.
- Karna. (2009). Environmental Activity and Forest Certification in Marketing of Forest Products: A Case Study in Europe. www.metla.fi, accessed on April 4, 2016.
- Kotler, Philip and Nancy, L. 2005. Corporate Social Responsibility. New Jersey: John Wiley and Sons, Inc.
- Kritonis, A. 2005. Comparison of Change Theories of Kurt Lewins 1951 . International Journal Of Management, Business and Administration Volume 8, Number 1. California State University, Dominguez Hills.
- Muhammad, R., M.Imran, Qayyum, A., M.Yousaf, Qaiser S., Sobia A. dan Noreen, F., 2012. Consumer's Purchase Intention Towards Counterfeit Mobile Phones. Journal of Business and Management. Departement of Management Science. Islam Univeristy of Bahawalpur. Pakistan.
- Nisbet, EKL, & Gick, ML . 2008. Can Health Psychology Help The Planet ? Applying Theory And Models Of Health Behaviour To Environmental Actions. Canadian Psychology.
- Paco, D. & Reis R. 2012. Factors Affecting Skepticism toward Green Advertising. Accessed from the Journal of Advertising Vol. 41.
- Peter, J. Paul dan Olson, Jerry C. 2010. Consumer Behavior and Marketing Strategy, 9th edition. McGraw-Hill and Irwin. New York, U.S.A.
- Pitasari, J.P. and Ariastita, P.G., 2012. Pattern of Community Shopping Changes Due to Change Shopping Center In District Wonokromo. Journal of ITS Engineering.

- President of the Republic of Indonesia. Number 32 Year 2009. About Environmental Protection and Management 3. Environmental Awareness.
- Praditya, I.I., 2016. Plastic Pockets in Retail Stores Now Back Free. Coverage 6 Economic Business. www.bisnis.liputan6.com, accessed on October 11, 2016.
- Ramly, U. 2008. Environmental Education and Conservation of Coastal Natural Resources. UNG Press.
- Schultz ,P.W. S. 2001. Structure of Environmental Concern: Concern for self, Other People, And the Biosphere. Journal of Environmental Psychology, California State University, San Marcos, U.S.A.
- Sharma, M. and Romas, J.A., 2011. Theoretical Foundations Of Health Education And Health Promotion. Jones & Bartlett Publishers.
- Wahyuni, T. CNN Indonesia. 2016. Indonesia The World's Second Plastic Waste Contributor, accessed on March 12, 2016.
- Waskito, J. and Harsono, M., 2012. Green Consumer: Description of Awareness Level and Concern of Joglosemar Society towards Environmental Sustainability. Journal of Management Dynamics.
- Wassener, B. 2010. Concern Over the Environment Rises in Asia, accessed on May 04, 2016.