

Analysis the Value of Green Advertising and Environmental Management in the Garment and Textile Industries

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Abstract: Garment and textile industries is one of the country's foreign exchange contributors. This industry is prioritized to be developed because it has role in economy of Indonesia. But garment and textile industry have a weakness in competitiveness. Wasteful use of energy is one of the competitive advantage weakness, because that has impact on industry cost and the environment. The purpose of this study is to analyze the values of green advertising and environmental management in garment and textile industries. Research method used is quantitative method and analysis technique using SEM-PLS tool. Sample in this research is 50 respondents from 9 companies. The results of this research are green advertising has significant effect on environment management, environmental reputation, and financial performance. Environmental management has no effect on environmental reputation. The environmental reputation significant effect on financial performance.

1 INTRODUCTION

According to the Ministry of Environment and Forestry Statistics Data 2015, the projection of climate change shows an increase in average temperature (climatology) ranging from about 0.65°C in the period 2016-2040, 1.2°C in the period 2046-2070, to about 1.5°C in the period 2076-2100 (www.menlhk.go.id).

Climate change is largely due to human activity. The eight largest contributors of carbon emissions are cement, steel, pulp and paper, textile, ceramics, fertilizer, petrochemical, and certain food and beverage industries (www.tempo.co.id). Based on these data, textiles are one of the largest carbon emitters. But on the other hand, the textile industry is one of the ten potential commodities (www.kemendag.go.id). Potential industries must be developed and managed with the right environmental management, these two ways encourage economic growth and reduce impact on the environment. According to Industry Minister, The Indonesian Government try to encourage environmentally friendly industries (www.tempo.co.id). Business and environmental knowledge, as well as systems, practices, and routines should be upgraded, to encourage economic benefits and environmental protection (Albertini, 2013).

Environmental pollution generated by the manufacturing industry, causing consumers become more aware of the environment (Chen, 2011 in Chen and Chang, 2013).

Consumer environmental awareness is created by environmental pollution increased and the implementation of green marketing. Green marketing has a positive impact on consumers. Consumers are becoming more aware to protect their environment and, in the future, consumers will prefer environmental friendly products. Marketers and policy makers must be aware of this consumer behavior shifting (Khandelwal and Bajpai, 2011).

Consumer awareness is not accompanied by a belief in green products. Therefore, green advertising is very important in communicating the company's environmental friendly practices to audiences (Khandelwal and Bajpai, 2011). The occurrence of changes in the message delivered in green advertising. The 1980s and 1990s message delivered focused on fuel efficiency. The 2000s message was focused on the benefits of consumers and wider social wealth (Ahern et al., 2012).

Consumer's hesitancy to green advertising, because the message conveyed less meaning of the environment deeply and most of the research does not include the measurement of the depth of environmental messages (Cummins, et al., 2014).

Therefore, companies should focus on implementing environmental policies and management, so that consumers are trust and company acquire green reputation from consumers (Abdelzaher and Newbury, 2016).

Based on the data and previous research, this article aims to know:

- Does Green Advertising have an effect on Environmental Management?
- Does Green Advertising affect the Environment Reputation?
- Does Environmental Management Affect Environmental Reputation?
- Does Environmental Reputation Affect Financial Performance?
- Does Environmental Management Affect Financial Performance through Environmental Reputation?
- Does Green Advertising Affect Financial Performance through Environmental Management and Environmental Reputation?

2 LITERATURE REVIEW

2.1 Green Advertising

Green advertising is an advertisement that offers consumers how convenient using eco-friendly products or services as social responsibility (Ahern et al., 2012). Green advertising is how deep the environmental focus is in advertising (Cummins et al, 2014).

Green advertising should focus on green claims that are easily observable, easy to understand clearly, practically, and useful for protecting the environment (Leonidou et al, 2011). Therefore, green advertising is a part of environmental marketing strategy that can help company to achieve a sustainable competitive advantage, and superior performance (Leonidou et al, 2011).

Hypothesis 1, green advertising has an effect on environmental management.

A green brand image was built by the company when creating green advertising with a message context that provides environmental protection (Hu, 2012). In his research Ko, et al (2013) green marketing that focuses on green products and green advertising is strongly related in building the company's reputation. Providing clear information and authentic environmental claims is the success of green advertising in generating a good reputation within the industry (Dean and Pachechho, 2014).

Hypothesis 2, Green advertising affects the environmental reputation.

2.2 Environmental Management Practice

Environmental management is a practice related to the environment and ensures human continuity to live on Earth indefinitely (Cummins et al, 2014). According to Irwan and Suzana (2016) environmental management practices are a tool for organizations to manage the impact of the organization's activities on the environment. There are four reasons why companies go green, namely: (a) profitable business, (b) part of CSR activities, (c) government regulations, (d) cost and benefit issues (Trott, 2013). According Jeong et al (2014) implementation of environmental management is very useful, therefore the company must be consistent in running environmentally friendly practices. Industries that depend on nature and constrained by limitations, must carry out environmental management within their company (Yu and Ramanathan, 2016).

According to Mayer et al (2012) cited by Yadav et al (2016), the company's commitment to the environment plays a role in improving green reputation. For some companies, green reputation is one of the most important factors. The company's reputation is closely linked to the implementation of environmental management (Ko et al, 2013).

Hypothesis 3, Environmental management affects the environmental reputation.

2.3 Environmental Reputation

According to Banyte and Gageikiene (2008) cited by Sarkar (2012) green marketing reinforce the brand image. Generally, green marketing refers to promotional and advertising activities that refer to the environment. Companies that do green marketing not only get a good response from consumers but also can cut production costs, so the price offered to consumers is more economical (Sarkar, 2012).

Hypothesis 6, Green Advertising has an effect on Financial Performance through Environmental Management and Environmental Reputation.

According to Yusof (2012) the environmental reputation affects the value of spending. It can be said that if a product has a good environmental reputation then consumers will spend money to spend more company products.

Hypothesis 4, Environmental Reputation Affects Financial Performance.

2.4 Financial Performance

Effective implementation of green marketing encourages a customer trust to the company, which affects business performance (Ko et al, 2013). Environmental performance is the output of environmental management. Environmental performance has a positive relationship with financial performance (Albertini, 2013).

If the reputation of the company is good then it will affect consumer purchase intention (Ko et al, 2013). This can be interpreted that the company's reputation affects the company's financial performance. According to Yu and Ramanathan (2016) the implementation of environmental management has an effect on the improvement of company performance.

Hypothesis 5, Environmental management affects financial performance through environmental reputation.

3 METHODOLOGY

In this research, data analysis technique used is structural equation modeling (SEM). SEM is a composite of two separate statistical methods, namely:

- Factor analysis developed in psychology and psychometric
- Simultaneous equation modeling developed in econometrics (Ghozali, 2011: 3).

According to Wright (Jogiyanto and Abdillah, 2015: 140) SEM is a statistical technique for testing and estimating causal relationships by integrating factor analysis and path analysis.

The SEM type used in this study is PLS-SEM. Partial Least Squares (PLS) is a SEM-based statistical model designed to solve multiple regressions when specific data problems occur, such as small sample size, missing values, and multicollinearity (Jogiyanto and Abdillah, 2015: 161). PLS is a variance-based structural equation analysis (SEM) that can simultaneously perform testing of measurement models as well as testing structural models (Jogiyanto and Abdillah, 2015: 164). The measurement model is used to test the validity and reliability, while the structural model is used for causality test (hypothesis testing with prediction model) (Jogiyanto and Abdillah, 2015: 164).

In this study using Nonprobability Sampling. Nonprobability sampling is a sampling technique that does not provide the same opportunity for each element or member of the population to be selected as a sample (Sugiyono, 2016: 218). The type of research used in this study is purposive sampling. According Sugiyono (2016: 218) purposive sampling is a technique of sampling data sources with certain considerations. This particular consideration, such as the person who is deemed to know best about what we expect, or perhaps he as the ruler will make it easier for researchers to explore the object or social situation under study. According Jogiyanto and Abdillah (2015: 66) purposive sampling is a sample selection technique when the researcher does not have data about the population in the form of sampling frame and the researcher then chooses the sample based on certain criteria and the researcher's assessment to direct the selected sample according to the research objectives.

The sampling criteria are based on the following:

- Respondents are part of manufacturing companies of textile sub-sector and garment sub-sector listed on Indonesia Stock Exchange which carry out environmental management.
- Respondent is a staff / equivalent, supervisor / equivalent, or also manager / equivalent part of textile manufacturing and garment manufacturing company listed on BEI responsible for environmental issues and product safety.

Based on the criteria of sampling above, the company that became the sample of this study amounted to 9 companies because it meets the criteria of sampling, 8 companies are not sampled in this study because it does not implement environmental management. The total sample taken is 50 samples.

4 RESULTS AND DISCUSSION

This study uses several test models, namely Indicator Reliability, Internal Consistency Reliability, Convergent Validity, and Discriminant Validity. Inner model test to know relation between construct, significance value and R-square from research. The inner model test is performed using the R-square value of the endogenous construct (dependent variable) and t-test on each exogenous latent variable (independent) to the endogen dependent variable construct from the bootstrapping result.

Table 1: Results of R² in endogenous latent variables.

Latent Variable	Value R ²
Environmental Management (EM)	0,292
Environmentally Conscious Manufacturing (ECM)	0,757
Product Stewardship (PS)	0,714
Environmental Reputation (ER)	0,310
Financial Performance (FP)	0,079

It is known from Table 1 that the value of R² for endogenous latent variables of Environmental Management (EM) in this structural model has a value of 0.292 which means that the exogenous latent variable Green Advertising (GA) influences the endogenous latent variable of Environmental Management (EM) of 29.2% and 70.8 % influenced by other factors outside of these variables. The value of R² shows that the model belongs to a substantial (weak) classification.

Then the value of R² for Environmentally Conscious Manufacturing (ECM) in this structural model is 0.757 which means the exogenous latent variable of Environmental Management (EM) affect endogenous variables Environmentally Conscious Manufacturing (ECM) of 75.7% and 24.3% other factors beyond those variables. The value of R² shows that the model belongs to a substantial (strong) classification.

Then the value of R² for Product Stewardship (PS) in this structural model is 0.714 which means exogenous latent variable of Environmental Management (EM) affect endogenous latent variable Product Stewardship (PS) equal to 71,4% and 28,6% influenced by other factors outside of these variables. The value of R² shows that the model belongs to a substantial (strong) classification.

The R² value for Environmental Reputation (ER) in this structural model is 0.310 which means exogenous latent variable Environmental Management (EM) and Green Advertising (GA) affect endogenous Product Stewardship (PS) of 31.0% and 69.0% by other factors outside the variable. The value of R² shows that the model belongs to a substantial (weak) classification.

The endogenous latent variable of Financial Performance (KK) in this structural model has an R² value of 0.079 which means the exogenous latent variable Environmental Management (EM), Green Advertising (GA), and Environmental Reputation (ER) affect endogenous latent variable Financial Performance (FP) equal to 7.9% and 92.1% are

influenced by other factors outside of these variables. The value of R² shows that the model belongs to a substantial (weak) classification.

Table 2: Hypothesis test results.

Hypothesis	Correlation	Path Coefficient	t test	t table (5%)	Explanation
H1	GA EM	0,541	5,759	1,96	H1 Accepted Significant
H2	GA ER	0,392	2,355	1,96	H2 Accepted Significant
H3	EM ER	0,238	1,677	1,96	H3 Rejected
H4	ER FP	0,282	2,357	1,96	H4 Accepted Significant
H5	EM FP	0,067	1,194	1,96	H5 Rejected
H6	GA FP	0,147	2,072	1,96	H6 Accepted Significant

Based on the result of path coefficient value and t-statistics value in Table 2, it shows all hypothesis of positive path coefficient value and T-statistics > 1,96 meaning significant then all hypotheses supported. The conclusions of the test results for each hypothesis are as follows:

H₁: Green Advertising has a significant positive effect on Environmental Management.

H₂: Green Advertising has a significant positive impact on the Environmental Reputation.

H₃: Environmental Management has no effect on Environmental Reputation.

H4: Environmental Reputation has a significant positive effect on Financial Performance.

H5: Environmental Management has no effect on Financial Performance.

H6: *Green Advertising has a significant positive effect on Financial Performance.*

5 CONCLUSIONS

Based on the research conducted on the sub-sector of textile and garment industry, it can be concluded that:

- Green advertising has a positive and significant impact on environmental management activities in the textile and garment industry sub-sector.
- Green advertising has a positive and significant impact on the reputation of the environment in the sub-sector of textile and garment industry.
- Environmental management does not affect the environmental reputation of the textile and garment industry sub-sector.
- The environmental reputation has a positive and significant impact on the financial performance of the textile and garment industry sub-sector.
- Environmental management does not affect the financial performance of the textile and garment industry sub-sector.
- Green advertising has a positive and significant effect on financial performance in textile and garment industry sub-sector.

Based on this research, there are some suggestions for further research that is:

- The number of companies as samples is added to be more accurate, not only in the textile and garment industry sub-sector but in other sub-sectors so that the results can be more accurate, detailed and accurate.
- In this study the collected data is limited by the number of sample companies so that the analysis technique used is the PLS-SEM method. Subsequent research could use Covariance Based SEM or CB-SEM method in performing data analysis and using Amos or Lisrel software. This is useful for obtaining maximum results due to standardization in CB-SEM higher than PLS with more data samples.
- Based on this research, there are some suggestions for sub-sector companies of textile and garment industry are as follows:
- Green Advertising conducted by the company has a positive influence on Environmental Management, the sub-sector of textile and garment industry as the object of this research should keep improving the company's activity

communication in environmental management to create the value of the conscious environment by regularly updating the website with information related to environmental protection.

- Green Advertising conducted by the company has a positive impact on the Environmental Reputation. In the implementation, Green Advertising is enough to raise the company's Environmental Reputation. Companies can emphasize the environmental impact of products in marketing campaign activities and sponsor environmental organizations so that the Environment Reputation is in good category.
- The company's environmental reputation affects Financial Performance, the textile and garment industry sub-sector must be able to improve customer perception about the future prospect of the company's environment by showing the company's achievement in environmental protection.
- Green Advertising run by the company affects the Financial Performance of textile and garment industry sub-sector. With the existence of Green Advertising then can improve the company's Financial Performance through Environmental Reputation. The company can improve the company's environmentally friendly image, so that customers are satisfied with the company's efforts in reducing adverse environmental impacts.

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