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Does the Green Image Enhance Student Satisfaction? (Evidence from Indonesia)

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Abstract

The Green Image has become one of the success indicators for various organizations including educational institutions. The Green Image is believed to improve the overall reputation of an organization and is hoped to have an impact on behavioral intentions of stakeholders. In the context of higher education in Indonesia, the green campus competition has been increasingly popular and something to look forward to. This study investigated the impact of the Green Image on university reputation and student satisfaction through multiple regression analysis. The respondents of this research were 441 students from several major universities in Indonesia selected through convenience sampling. The results of the study show that the Green Image influences university reputation and student satisfaction. University reputation is proven to mediate the effect of the Green Image towards student satisfaction. The results of the study are expected to fill in the gap in the literature of the Green Image in the context of the education sector and to be a reference for universities in pursuing and managing green reputation and enhancing student satisfaction.

Key words: *the Green Image, university reputation, student satisfaction*

Introduction

The Green Image has become increasingly popular in various parts of the world, including Indonesia. Various aspects of life are embedded with the word “green” to denote something or someone is environmentally friendly. Green building, green

campus, green economy, green consumer, green product, all these are familiar phrases recently. Likewise, Indonesian consumers are showing increasing interests in green products as can be seen from the increasing crowds at green festivals routinely held by the local government in major cities in Indonesia, such as Jakarta¹.

Looking at the development of various green activities in recent years, it is estimated that the market for green products is very large and it has the potential to grow steadily. The relatively large and increasing market size, the commitment of the government for going green, and the pressure of the green consumerism movement bring attractive opportunities for marketers engaged in green products while at the same time encouraging other marketeers to pay attention to the green aspects of their businesses.

This phenomenon does not only occur in business sectors, such as retail, property, and other consumer products, but also occurs in the education sector. For example, Universitas Indonesia held a UI GreenMetric World University Ranking and gave a green award to universities that met green requirements. In 2018, UI GreenMetric Ranking of World Universities announced the Wageningen University & Research as the best green campus in the world. University of Indonesia ranked 27th in the world, and became the greenest campus in Indonesia². McAleer, Nakamura and Watkins (2019) said that university ranking is important to students and parents as well as other university stakeholders. The rank is used as an indicator to assess the reputation of a university.

The previous study by Cincera et al. (2012) found no evidence that students from green awarded schools were more pro-environmental than those who were new in the system, which is quite an enigma. Moreover, it is still unclear whether the Green Image would influence school reputation and more importantly, the satisfaction of students. This research is expected to fill in the gap in the literature of the Green Image in the context of the education sector. The results of the study are intended to serve as an input to education policy makers to encourage a green campus.

¹ <https://lifestyle.bisnis.com/read/20190201/220/884619/buka-green-festival-2019-ini-harapan-jokowi-kepada-generasi-milenial>

² <http://greenmetric.ui.ac.id/overall-ranking-2018/>

Literature Review

The Green Image

Image is an important concept in organization and marketing. Image is a reflection of the opinions and emotions that are accurate from someone. What an organization does and how the organization appears in the community will shape its image. Therefore, the image of an organization is formed based on the opinions and emotions of all the constituents of an organization. Organizational image is a public perception based on what is known to the general public about an organization (Marconi, 2002).

Some aspects related to organizational image are the name of the company, architecture, variations in services and products, traditions, ideology, and impressions of quality communicated by everyone who interacts with an organization. Organizational image has two basic components, namely functional and emotional components. Functional components are related to real attributes that can be measured easily while emotional components are related to the psychological dimension that is manifested from feelings and attitudes towards the organization. These feelings and attitudes are formed as a result of the experience with organizations (Berman & Evans, 1995).

From the marketing perspective, many consumer purchasing decisions depend on the image of the organization (Argenti & Forman, 2003). Today, it is not enough to win a competition simply by offering superior products and services; a company should also possess a good organizational image. The Green Image, especially, has become increasingly important because of society's growing environmental consciousness (Turcksin et al., 2011). The Green Image can be manifested through policies and actions towards environmental preservation. In the context of consumer behavior, the society is increasingly critical of organizations that are not environmentally friendly. Therefore, green management can serve as a strategic tool as well as a competitive advantage (Lee et al., 2010). Moreover, environmentally friendly organizations tend to get positive reviews from consumers and in turn this influences their willingness to pay and revisit intention (Lee, Hsu, Han, & Kim, 2010; Kubickova, Nusair, Parsa, & Hu, 2014).

Chen (2008; 2010) defines the Green Image as perceptions that arise from interactions between institutions, personal, customers, and communities that are connected with commitment and concern for the environment. Green Images are believed to have a positive impact on a business organization. Yusof, Musa and Rahman (2012) showed the positive impact of Green Images on customer loyalty. Elissa (2010) reported that one of the reasons organizations pursued a Green

Image was the effect on sales. Another study of the Green Image was carried out by Ng, Butt, Khong and Ong (2014) who investigated the effect of perceived brand quality and brand credibility on consumer perceptions of green brand image, green value, and green equity. In their study, they showed a significant effect of green brand image on green equity. Martinez (2015), empirically investigated the effect of the Green Image on green trust, green satisfaction, and green loyalty in the hospitality industry. She found that the overall effects of the Green Image on green trust, green satisfaction, and green loyalty were supported by her data. A recent study by Hwang and Choi (2018) in the airline industry showed that overall image of airlines affected the customers' intentions to use them, word-of-mouth intentions as well as willingness to pay more. These studies show the crucial role of the Green Image on the formation of behavioral intentions across many service industries.

University Reputation

Reputation is a valuable intangible asset of a company. Gotsi and Wilson (2001) define reputation as how organizations are perceived or evaluated by various stakeholders over time. Stakeholders may evaluate a company based on their personal experience after encountering its various types of communication as well as symbols which project the company's goals and actions relative to its competitors (Walsh, Mitchell, Jackson & Beatty, 2009).

Buchalska, Chmielewski and Doczekalska (2015) provided definitions of corporate reputations from seventeen authors in their paper. One of the comprehensive definitions of corporate reputation in their paper is the definition from Gotsi and Wilson (2001) above. Reputation is built over time through social interaction and public communication, and it is a long term process and continuous effort. Specifically, reputation shapes public perceptions of an organization and a long-standing reputation will shape brand awareness. A bad reputation will be difficult to form a strong brand, while a good reputation does not necessarily provide a guarantee of brand success (Page & Fearn, 2005).

Referring to the company's reputation above, a definition of university reputation can be drawn up, namely the collective representation held by the university stakeholders from time to time. The university's reputation is formed from stakeholders' experience directly or indirectly with the university, and information received by stakeholders through various communication channels and symbols (Alessandri, Yang, & Kinsey, 2006). Information is obtained from the views of stakeholders on various university symbols such as logos, building architecture, and university activities. Moreover, university reputation also concerns the

perceptions of various stakeholders on how they are treated by the university's management (Ressler & Abratt, 2009).

The identity of an organization is reflected in the self-presentation of the organization, which among other things is in the form of signs or signals that the organization shows (Van Riel and Berens, 2001). Argenti and Druckenmiller (2004) stated that the attributes of an organization as shown by people in organizations, products, and services offered are also organizational identities. The identity of this organization is captured as an image. This image contributes to the reputation of a company. The better the image of an organization, the better the reputation of the organization. One information compiled is about the impression of green from a university that is formed from various symbols and activities that signal environmental preservation. Specifically, this Green Image is estimated to be related to the university reputation. Therefore, the first hypothesis is as follows:

H1: The Green Image has a positive effect on University Reputation

Students' Satisfaction

Students' satisfaction is the main goal of every university. Satisfied students can be a source of a competitive advantage that will result in positive word of mouth, retention and student loyalty (Arambewela & Hall, 2009). In the world of higher education where students are seen as consumers, the concept of the student satisfaction is the key to successful service. Higher education providers are beginning to realize that the institutions they run resemble those in the service industry. Universities are beginning to focus activities on meeting the needs of their students. In their research, Oldfield and Baron (2000) stated that the world of higher education could be seen purely as a service industry, therefore student satisfaction as a consumer was very important.

Elliot and Shin (2002) defined student satisfaction as a subjective evaluation of students for various outcomes and experiences related to education. Student satisfaction is formed continuously from everyday life in the university environment. Various researches have proven that satisfied students can attract prospective new students through the positive word of mouth communicated to their friends and relatives. Moreover, it is also possible that after graduating they will return to the university to take further education (Marzo-Navarro, Pedraja-Iglesias, & Rivera-Torres, 2005).

The importance of the university reputation for its long-term survivability is undoubted. In general, the university reputation plays a role in many ways. One of them is a predictor of student satisfaction. Gruber, Fuß, Voss and Gläser-Zikuda

(2010) conducted a comprehensive study of student satisfaction with higher education services in Germany that uses a measuring tool they developed themselves. Gruber and his colleagues investigated fourteen factors that were designed to predict students' general satisfaction with the university. That is one of the independent variables used is the reputation of the university. Referring to the research of Gruber et al. (2010), the second hypothesis is as follows:

H2: University Reputation has a positive effect on student satisfaction

In the retail context, there are many studies that examine the relationship between an image and consumer satisfaction, including the research conducted by Thakur and Singh (2012) and Sondoh Jr., Wan Omar, Wahid, Ismail and Harun (2007). In the hospitality industry, Martinez (2015) showed that satisfaction was influenced by the Green Image. In the university context, a similar pattern is expected. Therefore, the third hypothesis is as follows:

H3: The Green Image has a positive effect on Student Satisfaction.

Methodology of Research

The population of this research is several major universities in Indonesia. The sampling technique employed in this research was convenience sampling in which members of the population can be accessed and they are willing to be respondents. The total sample were 441 students, with 215 female students (48.8%) and 226 male students (51.2%).

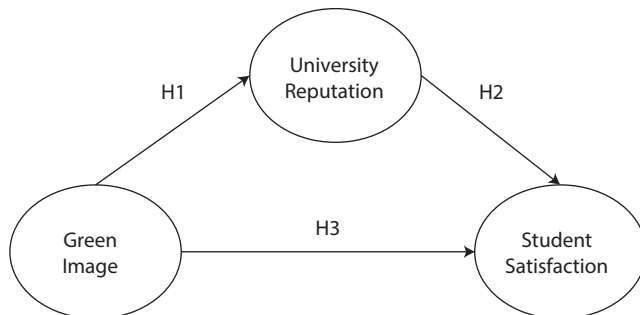


Figure 1. Theoretical Framework

Figure 1 describes the relationships among the exogenous (The Green Image) and endogenous variables (University Reputation and Student Satisfaction). University Reputation was hypothesized to mediate the relationship between The Green Image and student satisfaction.

All research variables were measured using measurement scales that have been developed in previous studies. The Green Image was measured by the scale developed by Chen (2008). The University Reputation was measured by the scale developed by Melewar and Akel (2005) and Alessandri et al. (2006). Student satisfaction was measured by the scale developed by DeShields, Kara and Kaynak (2006). The questionnaire was developed bilingually, in Bahasa Indonesia and English. The questionnaire was then tried out with 30 respondents for reliability testing. The Cronbach Alpha value for all variables has indicated values greater than 0.7: 0.899, 0.910 and 0.720 for The Green Image, University Reputation and Student Satisfaction consecutively.

Table 1 contains a brief description of the variables, indicators and the measurement of each research variable:

Table 1. Operational Definition and Measurement

Variables	Indicators	Measurements
The Green Image: Perception arises from interactions between institutions, personal, customers, and communities that are connected with commitment and concern for the environment (Chen, 2008)	<ol style="list-style-type: none"> 1. Seen as the best role model in environmental management; 2. Professionals in managing the environment; 3. Success in managing the environment; 4. Most advanced in managing the environment; 5. A stable reputation for managing the environment; 6. Trusted in managing the environment 7. Dependable in managing the environment 8. Pay attention to customers about managing the environment 	5-point Likert Scale
University Reputation: Collective representation held by university stakeholders from time to time (Alessandri, et al, 2006; Gotsi & Wilson, 2001; Melewar & Akel, 2005)	<ol style="list-style-type: none"> 1. Provide high-quality education 2. Attract motivated students and high achievers 3. Have high quality lecturers 4. Have hope to continue to grow 5. Media coverage of the university generally is very positive 6. Often appears in the mass media 7. Is a responsible member of the community 8. Positive feelings for University 9. Strong emotional ties 	5-point Likert Scale

Variables	Indicators	Measurements
Student Satisfaction Subjective evaluation of students on various outcomes and experiences related to education. (DeShields, 2006; Elliot & Shin, 2002)	<ol style="list-style-type: none"> 1. Academic services that I receive are according to my expectation 2. Non-academic services that I receive are according to my expectation 3. I am satisfied with the quality of the education at my University 4. The quality of the lecturer is not in doubt 	5-point Likert Scale

Results of Research

This study aims to investigate whether The Green Image of a university can increase Student Satisfaction (H1). This study also investigates whether University Reputation has a positive effect on Student Satisfaction and whether University Reputation is a mediator in the relationship between green image and Student Satisfaction. (H2 and H3).

To answer the first hypothesis, a regression between green image as the independent variable and University Reputation as the dependent variable was carried out. Regression analysis produces an F value of 752.815 with a significance number of 0.000. Therefore, the model that shows the relationship between green image and University Reputation is a model that can be analyzed by regression. The t value is 27.437 with a significance value of 0.000. These results indicate that the influence of green image on University Reputation is positive and highly significant. Therefore, the first hypothesis which states that green image has a positive effect on the University Reputation is accepted. This result is in line with the estimate that green image has a positive impact on the reputations of organizations that seek to build and maintain their green image through their green marketing programs and campaigns as stated by Argenti and Druckenmiller (2004).

To answer the second hypothesis, that is University Reputation has a positive effect on Student Satisfaction and the third hypothesis, that is Green Image has a positive effect on Student Satisfaction, multiple regression analysis was carried out. Regression analysis produces an F value of 300.060 with a significance value of 0.000. Therefore, the regression model with two independent variables which are University Reputation and Green Image, and the dependent variable which is Student Satisfaction can be analyzed by regression. The t value for University Reputation is 6.668 with a significant value of 0.000, which means that University Reputation has a positive and significant effect on Student Satisfaction. The t value

for Green Image is 9.007 with a significance value of 0.000, which means that Green Image has a positive and significant effect on Student Satisfaction. Therefore, H2 and H3 are supported by the data. These results support previous research which suggested a positive relationship between the reputation of an organization and satisfaction with the organization (Gruber et al., 2010), and a positive relationship between the Green Image and satisfaction with an organization (Sondoh et al., 2007).

To investigate whether University Reputation acts as a mediator in the relationship between Green Image and Student Satisfaction, a mediation Model 4 was employed in SPSS (Hayes, 2013), with 5,000 bootstrap samples and 95% confidence intervals. The result showed that the effect of Green Image on Student Satisfaction through University Reputation is significant (indirect effect of Green Image on Student Satisfaction) with $a = 0.1417$; $SE = 0.0265$; 95% $CI = [0.0928, 0.1972]$. This result confirmed the mediation effect of University Reputation in the relationship between Green Image and Student Satisfaction. The output of Model 4 of Hayes also confirmed the direct effect of Green Image on Student Satisfaction ran with simple regression analysis above ($t = 9.007$; $a = 0.2408$; $SE = 0.0267$; 95% $CI = [0.1883, 0.2934]$).

Conclusions

The Green Image has been a popular phenomenon recently and is one of the topics that has received the attention of various organizations, including universities. Universities can take advantage from the Green Image concept in improving their reputation and satisfaction of their students. This study investigated the relationships between Green Image, University Reputation and Student Satisfaction. The results of the study show that Green Image has a positive effect on University Reputation and Green Image also has a positive and significant effect on student satisfaction. Likewise, University Reputation was proven to have a positive and significant effect on student satisfaction. This study also shows the mediating effect of University Reputation in the relationship between Green Image and student satisfaction. The results of the study are supposed to encourage various universities in Indonesia to build a Green Image. The study was only conducted in Indonesia thus generalizing the results of the study is limited. Future studies are expected to expand this study to a multi-country analysis by taking samples from several environments.

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