DETERMINANTS OF GREEN MARKETING QUALITY PRACTICES AMONG SMALL MEDIUM ENTERPRISES (SMEs)

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ABSTRACT

The phenomenon of green marketing practices is growing in popularity. People are becoming more sensitive towards environmental issue which is a favorable social consciousness. Considering substantial numbers of small and medium enterprises (SMEs) operating in Indonesia, there is a need for assessing the environmental impacts of their operations. The study aims at determining the antecedents of green marketing quality practices among SMEs. The sample of study was export-oriented SMEs located in Banyumas Regency Central Java Indonesia. One hundred and twenty-five companies were selected as the respondents of the study. Data were gathered using questionnaire containing items measured using Likert scale. Data were analyzed using multiple linear regressions, and the finding showed that all independent variables except environmental consciousness have significant influence on green marketing quality practice by SMEs. The most influential factor on marketing quality of SMEs was social impressions. The implication of the study is that every SME should always put their best effort in preventing environmental damaged resulting from companies’ operation. Location in where sample was selected was conveniently determined (convenient sampling). Including other provinces as research locations might improve the representativeness of the data, and might ultimately give different result on this area of study.

Key words: Green marketing, environmental quality, ecological products, Small businesses

INTRODUCTION

Green Peace campaign exerts a constant pressure on high environmental impact businesses such as mining. The force is now extended to developing countries including Indonesia, where environmental threats are alarming local governments and citizens. Environmental issue shall remain everyone’s business perpetually (Rex and Baumann, 2007) that is why some people called
the 1990s the environmental decade (Bradley, 2007). Green marketing is part of the key movements in modern business sustainability though their primary concern has always been revenues and profits every business firm must place serious attention on the environmental consequences of their business operation while still focusing on making high profit. Therefore, the issue of green marketing becomes a detrimental part of companies’ sustainability (Akenji, 2014; Maniatis, 2015; Yang et al., 2015).

Some environmental problems occurred as a result of human consumption (Osman et al., 2015). Increasing customers’ awareness on environmental issues has resulted in higher demand for ecological products and sustainable business activities-creating a market opportunity for green products. Some consumers do not only forced firms to produce ecological products but taking further actions to control their personal impact on the environment via activities such as recycling and reusing their household items (Prakash, 2002). Consumers are willing to pay higher prices for environmental friendly goods and services (Charter and Polonsky, 1999).

The environmental condition in Indonesia is deteriorating from day to day. The main cause of the damage was the negligent behavior of individual as well as companies towards environments. Indonesia became one of the countries with the highest air pollution levels in the third world. World Bank also put Jakarta as the most polluted city after Beijing, New Delhi and Mexico City. Environmental issue is becoming a more serious for the society along with the health and economic challenges. The increasing society’s concern about environmental quality worldwide opens up emerging opportunities for green markets (Lee, 2008). The government should impose stricter regulations to protect the environment from further destructions.

Environment provides big support of sustainability of businesses, including small business. Protecting environment should be everyone’s job. Thus, safe environmental behavior is one way to increase peoples’ awareness on environmental safety. Companies producing green products will have better access to the market as compared to those who do not producing it. SMEs producing green products receive advantages in the form of stronger bargaining power in the market and ability to cope against government pressure on environmental safety. Business firms need to practice green three R's of management waste: reducing, re-using, and recycling which will directly add to the cost of processing and finally establish favorable companies’ behavior towards environment (Kotler, 1997).

Despite of growing awareness on the importance of ecological products at global level, only few studies focused on the green marketing behavior of small medium enterprises. Although environmental issues influence all human activities, few researchers have integrated green issues in the literature (Chen and Chang, 2012; Cronin et al., 2011; Vaccaro, 2009). This study attempted to fill the void by performing survey on 125 SMEs in Indonesia.

The theory of planned behavior has been often used to study the relationship between people’s beliefs, attitudes, and behavioral intentions, including green consumption behavior (Chan and Lau, 2002), ecological behavior (Kaiser et al., 2003), readiness for environmental protection (Pouta et al., 2002), marketing of environmentally friendly products (Kalafatis et al., 1999) and choice of green hotels (Han et al., 2010; Kim and Han et al., 2010). However, although previous studies have used the theory of planned behavior to explain behavioral intentions, few studies have examined environmental cognitions of individuals. Therefore, this study used an extended theory of planned behavior model to analyze empirical data and learn about behavioral intentions relating to green consumption. The implications of this study can be considered when introducing environmental policies, developing corpo-
rate environmental consciousness, and promoting green consumption in the hopes of increasing social environmental consciousness and achieving environmental sustainability.

Based on the arguments made in the earlier sections, the problem of the research can be formulated as “what are the determinants of green marketing quality practices among export-oriented small and medium enterprises located in Banyumas regency Central Java Indonesia?” Therefore, objectives of the research are five folds: (1) Does green innovation have significant influence on green marketing quality practices; (2) Does greening the process have significant influence on green marketing quality practices; (3) Does green alliances have significant influence on green marketing quality practices; (4) Does social impressions have significant influence on green marketing quality practices; (5) Does environmental consciousness have significant influence on green marketing quality practices.

The remainder of this study is organized as follows. In Section 2, we reviewed relevant literature pertaining to the related factors and developed the research hypotheses. Afterwards, we presented the research methodology in Section 3, and demonstrated the analysis results in Section 4. Finally, Section 5 presents our findings, theoretical and practical implications, and limitations of this research.

LITERATURE REVIEW

Green Marketing Quality Practices

The term quality refers to companies’ ability to meet customers’ expectation. Green marketing incorporates a broad range of activities including almost every process step of procuring raw materials, producing, storing, packaging, shipping, and distribution of products (Palevich, 2012). As such many companies are venturing into green marketing, as an effort to maintain ecological balance in their operations, though their main underlying purpose is maximizing profits (Akenji, 2014; Maniatis, 2015; Yang et al., 2015), they reduce environmental pollution, conserve natural resources and protect the environment (Mohd Sukia et al., 2016). They gain a unique competitive advantage and develop new markets as they improve their corporate image their reputation and their product image from the consumer perspective. The consumers are informed about the concept of green products through green marketing (Peattie and Crane, 2005) thus it is apparent that green marketing provide new opportunities for market development. Thus quality of green marketing refers to compliance towards the elements of green marketing.

Most of the companies adopted green marketing for some of the following reasons (Nadhaf and Nadhaf, 2014:96): business opportunity; corporate social responsibility (many companies have started realizing that they must behave in an environment-friendly); fashion; governmental-pressure; competitive-pressure and cost reduction. Nonetheless, there are some challenges in implementing green marketing namely high recycling costs, investment in technology therefore resulting in high selling prices. Majority of consumers are not willing to pay higher prices for green products due to low perceived benefits. Among all the major hindrances, the main aspect contributing to the black lash against green marketing was consumer cynicism about green product, green claims and the companies’ intention as well as practices which is popularly known as green washing.

Peattie and Crane (2005) have identified five marketing practices green spinning, green selling, green harvesting, entrepreneurs marketing and compliance marketing which led to failure of green marketing nowadays. Green spinning refers to a company’s effort to take reactive approach by using public relation to deny or discredit the public’s criticisms against the company’s practices. Green selling is taking an opportunistic approach by adding some green claims to existing product with the
intention to boost sales. Green harvesting is a condition whereby a firm becoming enthusiastic about the environment only when greening could result in cost savings. Entrepreneur marketing refers to a company’s effort to develop innovative green products to market without really understanding what the consumers actually want. Finally, compliance marketing occurs when a firm use simple compliance with implemented or expected environmental legislation as an opportunity to promote the company’s green credentials without taking initiatives to go beyond responding to regulations.

Tiwari (2014) proposed five rules to be followed by firms when implementing green marketing; first, understand your customer well. An attempt must be made by firms to ensure that their consumer aware and concerned about the issues that firms’ products attempts to address. Second, educating customers about the importance of green marketing. The most important behind every firm’s greening effort is informing their customers that every action made was aimed saving the environment from destructions. Third, be Genuine and translucent confirming that firms are actually doing what they claim to be doing in their green marketing campaign and the rest of firms’ business policies are consistent with whatever they are doing that is environment friendly. Fourth, convincing their customers that the company’s products perform the job, in this firm must maintain product quality for the sake of environmental safety. Fifth, setting a correct price. When a firm charge a premium price for their products, they also need to convince that their customers on the degree of green compliance associated with their output as many environmentally preferable products cost more due to economies of scale and use of higher-quality ingredients. It is necessary to ensure that consumers can afford the premium and feel the value they paid for. Albeit substantial number of firms are adopting green marketing, it apparently not an easy job as there are a number of delinquents which need to be addressed while implementing green marketing (Tiwari, 2014): first, despite of there is a growing consumer awareness on green marketing, it is not yet a popular concept among societies. The consumer needs to be educated and made aware of the environmental threats. The new green movements need to reach which maybe time consuming and requires considerable efforts. Second, green marketing requires high investment covering the cost of marketing, technology advances, green power/energy and larger amount to be allocated for the product development and subsequent promotional programs. Third, convincing customers to reduce cynicism on firms’ green efforts. The firm therefore should ascertain that they give their best efforts in an attempt to convince the customer about their green product, the best possible option is by implementing co-labeling schemes. Sometimes the customers may also not be willing to pay the extra price for the products. Forth, sustainability at the initial stage of green marketing adoption, a firm may experience very thin margin due to high investment costs associated with the renewable and recyclable products and green technologies advances. It takes several years before a firm experiencing higher profit. As a consequence, the business needs to plan for long term rather than short term strategy and prepare for the same, at the same time it should avoid falling into lure of unethical practices to make profits in short term. Fifth, non-cooperation The firms practicing green marketing work hard to convince every stakeholder and voluminous occasions it may fail to convince them about the long term benefits of green marketing as compared to short term expenses. Finally, every firm must avoid green myopia green marketing must satisfy two objectives: improved environmental quality and customer satisfaction. Maintaining the balance is necessary, misjudging either or overemphasizing the former at the expense of the
latter can be termed green marketing myopia.

Despite of in its infancy age, green marketing is becoming prevalent in later years and a lot of researches were undertaken on green marketing to fully explore its potential.

Green Strategies

There are three main green strategies discussed in the literatures: green innovation, greening the process and green alliances (Chahal et al., 2014). Green innovation is an act of embedding environmental protection into a product design. The development of new or innovative green products provides a positive signal to firms’ stakeholder that they are green companies.

Green product innovation is a multi-faceted process focusing on three crucial elements namely: materials, energy, and pollution. Those elements are underlined according to the extent of their perceived severe impacts on the environment at every phases of the products physical life-cycle-manufacturing process, product use, and disposal (Alhadid and Abu-Rumman, 2014). The green product innovation measurement comprise of three main building blocks associated with a new product development. First, the company has to choose the materials that produce the least amount of pollution, second, the company has to use the fewest amount of materials to manufacture products, and third the company has to circumspectly deliberate whether the product is easy to recycle, reuse, and decompose (Utterback and Abernathy, 1975; Guoyou et al., 2015).

The Diffusion of Innovation Theory proposes that a firm should increase the rate of adoption on green products, services and processes to gain competitive advantage (Vaccaro, 2009). The performance of green innovation, product and process has a positive influence on the performance of the firms (Ar, 2012; Doran and Ryan, 2012; Chahal et al., 2014). It is crucial for firms to highlight the greening process as it is much easier to imitate the final products rather than the process (Chahal et al., 2014). Higher rate of adoption on green innovation shall increase the quality of green marketing practices by firms. With green products innovation firms are more confidence in releasing the goods therefore saving the company from green washing. Therefore, the following hypothesis is proposed:

H1: Green innovation is positively associated green marketing quality practices

The next strategy, greening the process, is a firm’s efforts to focus on environmental aspects while performing their business operations (Chahal et al., 2014). In other words, firms place strong emphasize on minimizing waste during their production process to avoid further environmental damage. An understanding on the concept of greening process is as an element of environmental management. It is considered as a management practice as involving planning, responsibilities, codes of practice, procedures, processes and necessary means for developing, implementing, managing, reviewing and maintaining of environmental policy (Riccio, 2001). The environmental management behavior promotes continues improvement in organizational performance by concentrated on the following activities (Riccio, 2001): (1) Designing and implementing environmental policy/environmental planning; (2) To activate the environmental objectives; (3) To validate and to prevent waste materials (measurement and assessment of effects); (4) To scan (permanent evaluation and control); (5) To review management activity (continuance improvement of system).

It is becoming obvious that the stronger firms’ commitment to include environmental safety as part of their policy on production, the higher firms’ performance on green marketing quality practices. A firm with high adoption on greening the process is protected against consumer cynicism on green washing allegation.
Therefore, the next hypothesis is proposed.

H2: Greening the process is positively associated with green marketing quality practices.

The next issue related to go beyond producing new, green products or greening the organization’s processes (Chahal et al., 2014). To benefit substantially on their green effort, firms can also utilize an alliance or partnership to enhance the green orientation (green alliances). Alliances allow access to complementary resources for value creation (King et al., 2003) as it shows how partners divide benefits (Lavie, 2009; Destri and Dagnino, 2005). Moreover, alliances foster innovation by complementary resources (Park et al., 2004) through a value network (Amit and Zott, 2001) increasing benefits through lowering costs (Chwen et al., 2006), risk sharing (Kogut, 1988), allowing specialization advantages (Chen and Paulraj, 2004), learning (Bouncken, et al., 2014), and utilizing complementary resources (Park et al., 2004). Green alliances motivate firms to adopt high quality green marketing practices as they face stiff competition from other green companies in the market. Therefore, the proposed hypothesis is:

H3: Green alliances is positively associated with green marketing quality practices.

**Social impressions on performance**

Supporting environmental protection make the companies become more socially attractive. The companies sell or produce ecological products and provide information to customers on it. Social impression refers to stakeholders’ hope and thought concerning one’s behaviors. The extend of extrinsic social impression influence on one’s confidence and sense of achievement can be seen as a reflection of position, achievement, respect, and approval, as well as other factors. Attfield (2014) urged that traditional ethics accentuates human relations’ ethics while environmental ethics highlights the responsibility and duties of people towards their environment. Environmental ethics education, which includes knowing the role environmental ethics has played in environmental policy and the responsibilities we bear in terms of problem solving, teaches people to be responsible to their environments therefore improving the quality of an individual’s social life (Ferkany and Whyte, 2012). Considering its importance, every community should advocate the cultivation of environmental ethics education. Moreover, environmental ethics is apposite to the preservation of ecological balance but becomes incongruous from the perspective of species chauvinism. (Swanton, 2010).

H4: social impression is positively associated with small businesses’ intention to adopt green marketing quality.

**Environmental consciousness**

Environmental consciousness is an integrated concept that encompasses cognitions, perceptions, concerns and sensibilities regarding environmental problems, as well as thoughts and attitudes towards solutions to such problems and how to maintain and manage the relationship between humans and the environment in order to achieve improved environmental quality (Hopwood et al., 2005; Glavič and Lukman, 2007; Hinds and Sparks, 2008). According to Bansal (2011), undeniably builds personal beliefs and behavioral intention plays a significant role in such consciousness. Environmental consciousness is a composite definition or concept encompassing environmental knowledge, values and attitudes, and this composite concept also reflects broader individual values, characteristics and other intrinsic and extrinsic factors, including social and cultural ones (Kollmuss and Agyeman, 2002). To maintain the balance between humans and the environment, the government needs to develop a system of environmental awareness to prevent further severe environmental damage as a result of
man’s social practice which consists of a comprehensive multi-layered system (Kollmuss and Agyeman, 2002; Steg and Vlek, 2009). In addition, Rannikko (1996) argued that environmental awareness involves a slowly changes on the meaning and importance of the environment which is contradictory with environmental values and environmental attitudes.

In sociology, value refers to an endless objective under normal conditions. An individual value is stiffer to alter and sturdier than an attitude, where attitude refers to predispositions towards positive and negative retorts to incidents, characters or objects under certain conditions. Nonetheless, the more enduring and firmer parts that signal action include knowledge and affective factors, such as knowledge of an environmental problem and the way to blowout consciousness of it and direct attitudes towards environmental consciousness also includes the way individuals behave in concrete situations on the top of knowledge and attitudes. Therefore, environmental consciousness has been essential for starting the environmental movement and determining its direction. It is apparent that strong connections exist between human beings and nature, between humans and the environment.

One of the biggest challenge every time an issue of environmental consciousness brought into surface is finding the correct measure of it. One best measure of environmental responsibility is direct observation of young people, over a significant period, who are minimising their environmental impact, reducing consumption and reusing and recycling materials (Hampels and Holdsworth, 1996). Nevertheless, there are other indicators that young people may be on the path to sustainability including (Hampels and Holdsworth, 1996): (1) their own reports of comparable behavior out of school; (2) their expressed willingness to adopt measures like energy saving or to allocate resources for conservation; (3) their expressed willingness to forego consumption and accept government regulation for environmental preservation; and finally, (5) the extent to which they show concern for all life and not simply that of humans.

The latter embraces the intention to safeguard plants, wildlife and other living creatures, an inclination to analyze the magnitudes of economic bustle and an alacrity to chain long-term with short-term planning. While the surroundings have a rigid quality about it, it is also a human edifice. For Local authority councilors the environment can be natural surroundings stripes, flower beds curbs and guttering, vacant lots and city parks. For the unscrupulous politician it is an infinite supplier of minerals, energy, food and fiber. The environment is something of a medicine cabinet of tropical plants ready to fight sickness and disease which a very useful reference and resources for the health specialist. For society who live in a country side, environment is a source of nutrition and revenue while for the people who live in a big city and heavy loaded with routine jobs, they may see in the environment as a refuge from stress and worry.

Finally, pious people, the environment is authentication to the wonder of God, The Creator to be worship in their life. Broadly, these outlooks range from the materialistic and abusive to the humble; from the human centered to the nature centered. People all over the world are becoming progressively more alert of their reliance upon the “environment” or natural world and the essential to curtail their impact on it for their survival. But disappointingly they are doing so far too leisurely. Based on earlier justification, the following hypothesis is proposed.

H5: Environmental consciousness is positively associated with small businesses’ intention to adopt green marketing quality.
Determinants of Green Marketing

Population and Sample

The population of the study were small and medium enterprises listed at the Department of Industrial, Trading and Cooperative in Banyumas Regency, amounted to 4,625 in 2016. Only SMEs with certain criteria was chosen as sample. The criteria imposed on sample were: first, the firms must be export-oriented; second, the firms must at least have been running their businesses for at least two years. The number of companies taken for examination was 125 companies. One key person in top level of management of each company was assigned to be respondent, hence 125 respondents were as well taken.

Variables

Dependent variable of interest was green marketing quality practices, while the independent variables included green innovations, greening the process, greening alliances, social impressions and environmental consciousness. Green marketing quality practices is defined as companies’ ability to meet customers’ expectation on broad range of activities including almost every process step of procuring raw materials, producing, storing, packaging, shipping, and distribution of products (Palevich, 2012). The variable was measured using four indicators: using green or organic materials; selling green products; green packaging and green labeling/promotions.

The first independent variable is green innovation which is defined as green innovation is an act of embedding environmental protection into a product design (Chahal et al., 2014). The variable is measured using 3 indicators: first, the company has to choose the materials that produce the least amount of pollution, second, the company has to use the fewest amount of materials to manufacture products, and third the company has to circumspectly deliberate whether the product is easy to recycle, reuse, and decompose (Utterback and Abernathy, 1975; Guoyou et al., 2013).

The second independent variable is greening the process refer to a firm’s efforts to focus on environmental aspects while performing their business operations (Chahal et al., 2014). This variable is measured using five indicators namely: designing and implementing environmental policy/environmental planning; to activate the environmental objectives; to validate and to prevent waste materials (measurement and assessment of effects); to scan (permanent evaluation and control); and to review management activity (continuance improvement of system).

The third independent variable is green alliances. Firms can utilize an alliance or partnership to enhance the green orientation (green alliances). Alliances allow access to complementary resources for value creation (King et al., 2003). The variable is measured using four indicators: willingness to learn collectively, willingness to accept resources sharing, being a member of related associations, willingness for knowledge sharing.

The fourth independent variable is social impressions refers to stakeholders’ hope and thought concerning one’s behaviors. There were four indicators used to measure this variable namely: eco-labelling, green products, green promotion and green packaging.

The last independent variable is environmental consciousness is an integrated concept that encompasses cognitions, perceptions, concerns and sensibilities regarding environmental problems, as well as thoughts and attitudes towards solutions to such problems and how to maintain and manage the relationship between humans and the environment in order to achieve improved environmental quality (Hopwood et al., 2005). The variable is measured using five indicators namely: their own reports of comparable behavior out of school; their expressed willingness to adopt measures like energy saving or to allocate resources for conservation; the position they place the environment in any list of adolescent concerns or values; their expressed willingness
to forego consumption and accept government regulation for environmental preservation; and finally, the extent to which they show concern for all life and not simply that of humans.

**Sampling Method**

Data were gathered using questionnaire and variables were measured by assigning the 5 Likert scaled items to be responded by respondents. The items in the questionnaires were tested for their validity and reliability. To assess the characteristics of respondents, descriptive statistic was adopted. Classical assumption test normality, linearity, multicollinearity, heteroscedasticity and autocorrelations was performed on data prior to further analysis using regression. Finally, the data was then analyzed using multiple linear regressions.

**Assessing Validity and Reliability**

Hair et al. (2010) defined reliability as an assessment of the degree of consistency between multiple measurements of a variable. This study assesses the consistency of the entire scale with Cronbach’s alpha and its overall reliability of each factor of productivity values. All values yielded alpha coefficient exceeded the values of 0.70 suggested by Hair et al. (2010) shall be retained. Item analysis was carried out to test the validity of the items. Those items with coefficient correlations above 0.5 are considered valid.

**Method of Analysis**

There were several stages of analysis employed in the study starting from classical assumption test until regression analysis.

**Test of the Classical Assumptions**

Before the data was analyzed, the regression models above should qualify the classical assumptions that included (Gujarati and Porter, 2009):

**Test of Normality**

It is necessary to test the normality of data before proceed to regression analysis. With the normality assumption, the probability distributions of OLS estimators can be easily derived because one property of the normal distribution is that any linear function of normally distributed variables is itself normally distributed. Independent variable both have normal or near normal distribution. To detect the normality of the data the study uses the Kolmogorov–Smirnov test.

**Test of Multicollinearity**

This test is used to evaluate the presence of strong correlations among independent variables used in the regression model. If the symptom persist (there is an evidenced of strong correlation), it is assumed that there is a multicollinearity problem in the model under study. A good regression model should be free from the existence of correlation among the independent variables. The test criteria for multicollinearity used Variance Inflation Factor (VIF) with the following provisions: (a) If the Variance Inflation Factor (VIF) > 10, multicollinearity problem exists, otherwise, (b) If the Variance Inflation Factor (VIF) < 10, there was no serious multicollinearity problem.

**Test of Heteroscedasticity**

Heteroscedasticity test arises from violating assumption of the classical linear regression model (CLRM). The test is aimed at verifying whether a regression model in place of inequality of variance of the residual one observation to another observation.

If the residual variance from one observation to other observations remains, it is called homoscedasticity and if it is different called heteroscedasticity. A good regression model is homoscedasticity. Heteroscedasticity test could be done with Glejser test. Glejser test is done by regressing the absolute residual value on the dependent variable (Gujarati and Porter, 2009). With the testing criteria, if the significance of correlation values were greater than α (0.05)
then there were no symptoms of heteroscedasticity.

**Test of Autocorrelation**

Autocorrelation test is defined as correlation between members of series of observations ordered in time (as in time series data) or space (as in cross sectional data). An important assumption is that there is no autocorrelation. It contains the meaning that if the observations were done over time then the effect of nuisance factor that occurred not carried to other period (Gujarati and Porter, 2009). To identify the autocorrelation symptom in this model, test of Durbin-Watson was used.

Before proceed to the multiple regression analysis, all the classical assumption tests must be met.

**Descriptive Statistics**

Descriptive analysis method is a method of analysis in which data are collected and classified and then analyzed and interpreted objectively. Descriptive statistics were performed on the respondents’ profile covering businesses’ type, experience and gross sales per month. Descriptive statistics of each variable (green marketing quality practices, green innovations, greening the process, green alliances, social impressions and environmental consciousness) in the form mean and standard deviations were also presented.

**Multiple Linear Regression Analysis**

Multiple regression analysis was used in this research to determine the influence of net profit margin, return on assets, current ratio, and cash flow from operation on dividend payout ratio of manufacturing companies listed in the Indonesian Stock Exchange. Statistical formula used was:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \epsilon \]

Where:

- \( Y \) = green marketing quality
- \( X_1 \) = green innovation
- \( X_2 \) = greening the process
- \( X_3 \) = green alliances
- \( X_4 \) = Social Impression
- \( X_5 \) = Environmental Consciousness
- \( b_1 \) = Coefficients of \( X_1 \)
- \( b_2 \) = Coefficients of \( X_2 \)
- \( b_3 \) = Coefficients of \( X_3 \)
- \( b_4 \) = Coefficients of \( X_4 \)
- \( b_5 \) = Coefficients of \( X_5 \)
- \( \epsilon \) = Standard error

**Test of Coefficient Determination**

Coefficient determination (\( R^2 \)) is the method to measure how good model in explaining variation of dependent variable (Gujarati and Porter, 2009). Coefficient determination (\( R^2 \)) score is between zero and one. Small coefficient determination (\( R^2 \)) score indicates ability of independent variables in explaining variation of dependent variable. On the other hand, score that approaches one indicates independent variables provide almost all information needed to predict variation of dependent variable. The closer adjusted \( R^2 \) score to 1, the better independent variables explaining dependent variable. To sum up good regression model is the one with coefficient determination closer to 1.

**Test of Simultaneous Significance**

Testing was conducted to determine whether all independent variables simultaneously have a significant effect on the dependent variable. The test form was (Sugiyono, 2006):

\[ F = \frac{R^2/(k-1)}{(1-R^2)/(n-k)} \]

Where:

- \( F \) = \( F_{\text{statistic}} \)
- \( n \) = Number of Sample
- \( k \) = Number of Independent Variables
- \( R^2 \) = Coefficient Determinant

Criteria:

- \( H_0 : \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 = 0 \)
- \( H_1 : \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \neq 0 \)

The level of significance (\( \alpha \)) = 0.05
\( H_0 \) was accepted if: \( F_{\text{statistic}} \leq F_{\text{table}} \) or \( F_{\text{statistic}} > F_{\text{table}} \) or \( \text{sig. value} > \alpha \)

\( H_a \) was rejected if: \( F_{\text{statistic}} > F_{\text{table}} \) or \( F_{\text{statistic}} \leq F_{\text{table}} \) or \( \text{sig. value} < \alpha \)

**Testing Partial Significance**

To know the influence of independent variables on quality of green marketing practices, necessary hypothesis testing as follows:

\( H_0: \beta = 0 \), it meant that independent variables, partially, has no significant influenced on quality of green marketing practices.

\( H_a: \beta \neq 0 \), it meant that partially independent variables has significant influenced on quality of green marketing practices.

Level of significance \((\alpha) = 0.05\)

\( H_0 \) was accepted if \(-t_{\text{statistic}} \leq -t_{\text{table}}\) or \( t_{\text{statistic}} \geq t_{\text{table}}\) or \( \text{sig. value} > \alpha \)

\( H_a \) was accepted if \(-t_{\text{statistic}} \leq -t_{\text{table}}\) or \( t_{\text{statistic}} < t_{\text{table}}\) or \( \text{sig. value} < \alpha \)

**RESULT AND DISCUSSION**

**Description of Sample**

As stated earlier, the total number of sample involve in this study was 125 small businesses with a minimum age of two years. Sample was SMEs managers or owners who were export oriented. All sample was located in Banyumas Regency Central Java Indonesia.

Based on their product types, there were six classifications of respondents. The first type of SMEs produced food or traditional cuisine such as cassava crackers, soy bean crackers, green bean crackers and similar type of traditional foods. The second type of respondents come from SMEs producing furniture for local and foreign markets. Besides making furniture or wooden made materials, the SMEs also produces woods derivatives such as handy-crafts.

The third type of small businesses are those producing household items such as rug, kitchen utensils. The fourth type of SMEs produce organic type of fertilizer which are environmentally safe. The fertilizers are in solid and liquid forms. The fertilizer is currently sold in the local market, nonetheless, the firm intend to sell the products abroad in the near future. The fifth type of SMEs produce fashions such as male and female clothings and their derivatives such as tie, vest, and scarf. The last type of SMEs produce raw materials used for production purposes such as building houses, road, bridges and similar types of goods. Majority of respondents produce traditional foods such as crackers, cookies, and nopia as the traditional foods in the region. The smallest participants in the study came from those firms which supply raw materials for housings such as making bricks, limestone, paving and crush stones.

**Table 1**

<table>
<thead>
<tr>
<th>Types of Company</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Food</td>
<td>42</td>
</tr>
<tr>
<td>Furniture</td>
<td>35</td>
</tr>
<tr>
<td>Household</td>
<td>25</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>3</td>
</tr>
<tr>
<td>Fashions</td>
<td>14</td>
</tr>
<tr>
<td>Raw Material</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>
Around forty-five SMEs have run their business for twenty-one until thirty-five years, another fifteen SMEs have been experiencing businesses for thirty-six until fifty years and remaining five have gain substantial experience in their business as they have experience more than fifty years.

<table>
<thead>
<tr>
<th>The Company’s age</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>&lt;20 years</td>
<td>60</td>
</tr>
<tr>
<td>21-35 years</td>
<td>45</td>
</tr>
<tr>
<td>36-50 years</td>
<td>15</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
</tr>
</tbody>
</table>

Referring to data presented in table 3, it is apparent that majority of SMEs earn gross sales above fifty million rupiahs per month. None of the SMEs earn less than ten million rupiahs per month. Approximately 34 SMEs earned between thirty to fifty million per month and the remaining five, earn revenue between ten to thirty million per month which was considered as promising sales figures for them.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross sales / Month (in Rupiah)</td>
<td></td>
</tr>
<tr>
<td>&lt;10,000,000</td>
<td>0</td>
</tr>
<tr>
<td>10,000,000-30,000,000</td>
<td>5</td>
</tr>
<tr>
<td>30,000,000-50,000,000</td>
<td>34</td>
</tr>
<tr>
<td>&gt;50,000,000</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
</tr>
</tbody>
</table>

There were five independent variables and one dependent variable observe in the study. The independent variable consist of three elements of green marketing namely green innovation, greening the process and green alliances while the other two consist of social impression and environmental consciousness. The dependent variable was green marketing quality. The descriptive statistics of all variables is presented in table 6. The item in the questionnaires is measured using ten scale therefore the maximum score obtain was ten. The highest average mean was attached to social impression indicating that it is among strong reason for SMEs to adopt green marketing quality. The validity and reliability test were carried out to measure the items used in the questionnaires. In order to validate the instrument, this study also considered construct validation using item analysis whereby item with correlation coefficient above 0.5 are retained (Hair et al., 2010). The result of validity test showed that all of items were valid as they fulfilled the recommended score. Test also showed that all of the items were reliable to use because of the value of cronbach alpha 0.836 was higher than the recommended value of 0.7 (Hair et al., 2010). From this result of Cronbach’s alpha coefficient value, this questionnaire was accepted and admissible. In short, it proved to be reliable. The result of reliability test is presented in table 4.
Table 4
The Result of Reliability Test

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.836</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 5
Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green marketing quality practices</td>
<td>125</td>
<td>3.00</td>
<td>10.00</td>
<td>6.4800</td>
<td>1.11152</td>
</tr>
<tr>
<td>Green innovation</td>
<td>125</td>
<td>2.00</td>
<td>10.00</td>
<td>5.2640</td>
<td>1.36868</td>
</tr>
<tr>
<td>Greening the process</td>
<td>125</td>
<td>2.00</td>
<td>10.00</td>
<td>6.0640</td>
<td>1.18283</td>
</tr>
<tr>
<td>Green alliances</td>
<td>125</td>
<td>3.00</td>
<td>10.00</td>
<td>6.8800</td>
<td>1.33562</td>
</tr>
<tr>
<td>Social impression</td>
<td>125</td>
<td>4.00</td>
<td>10.00</td>
<td>7.6880</td>
<td>1.22748</td>
</tr>
<tr>
<td>Environmental consciousness</td>
<td>125</td>
<td>1.00</td>
<td>10.00</td>
<td>5.6240</td>
<td>1.31777</td>
</tr>
</tbody>
</table>

Table 6
Regression analysis

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-1,137</td>
<td>.499</td>
</tr>
<tr>
<td>Green Innovation</td>
<td>.114</td>
<td>.050</td>
</tr>
<tr>
<td>Greening the process</td>
<td>.325</td>
<td>.050</td>
</tr>
<tr>
<td>Green Alliances</td>
<td>.122</td>
<td>.049</td>
</tr>
<tr>
<td>Social Impression</td>
<td>.488</td>
<td>.052</td>
</tr>
<tr>
<td>Env consciousness</td>
<td>.077</td>
<td>.058</td>
</tr>
</tbody>
</table>

Based on the regression coefficients indicated in the Table 6, of all independent variables (i.e. green innovation, greening the process, green alliances, social impression, and environmental consciousness) only four variables showed positive and significant impact on green marketing quality practices. This is indicated by the level of significances of the variables that are less than 5%. The fifth hypothesis stating that environmental consciousness has significant influence on green marketing quality practices was not supported.

Discussion
The first hypothesis stating that green innovation is positively associated green marketing quality practices was supported. This finding support the theory of Diffusion of Innovation Theory which states that higher rate of adoption on green products, services and processes was aimed at gaining competitive advantage in the market (Vaccaro, 2009). Previous work by Ar (2012), Doran and Ryan (2012), and Chahal et al. (2014) proposed that green innovation, has a positive influence on the performance of the firms therefore it is becoming a strong driver for firms in adopting higher quality green marketing. Another reason for firms to adopt green marketing quality is due to consideration on the importance for firms to highlight the greening process as it is much easier to imitate the final products rather
than the process. Higher rate of adoption on green innovation shall increase the quality of green marketing practices by firms. With green products innovation firms are more confidence in releasing the goods therefore saving the company from green washing.

The second hypothesis was supported which is in line with the work of Chahal et al. (2014). They emphasized on the importance of exposing the greening process into the public. Firms are advocated to disclosed their efforts in minimizing waste during production process to save the environment from further destructions (Chahal et al., 2014). Higher firms’ commitment on environmental safety shall increase firms’ performance on green marketing quality practices (Chahal et al., 2014).

The third hypothesis disclosed the existence of relationship between green alliances and green marketing quality practices. This hypothesis was supported which is in line some previous works discussed in the literature review. SMEs can utilize green alliances to substantially benefits from their green effort (Chahal et al., 2014). The study supports previous allegation made the existence of relationship between green alliances and green marketing quality practices. Firms adopting green alliances shall benefited in many ways: greater access to complementary resources for value creation (King et al., 2003) partners benefits sharing (Lavie, 2009; Destri and Dagnino, 2005), foster innovation by complementary resources (Park et al., 2004) through a value network (Amit and Zott, 2001) increasing benefits through lowering costs (Chwen et al., 2006), risk sharing (Kogut, 1988), allowing specialization advantages (Chen and Paulraj, 2004), learning (Bouncken et al., 2014), and utilizing complementary resources (Park et al., 2004). Green alliances motivate firms to adopt high quality green marketing practices as they face stiff competition from other green companies in the market.

The fourth hypothesis stating that social impression is positively associated with green marketing quality practices. The finding of this study support previous work by Chen and Chang (2012) claiming that stating that the extend of extrinsic social impression influence on one’s confidence and sense of achievement can be seen as a reflection of position, achievement, respect, and approval. Thus it is reasonable presumed that firms’ consideration on social impression affect the quality of their green marketing practices. In line with this study is the work of Attfield (2014) alleging that environmental ethics highlights the responsibility and duties of people towards their environment therefore Ferkany and Whyte (2012) and Swanton (2010) who highlighted the importance of ethics education in balancing social life in the community. The finding also supports the social cognition theory, emphasizing the importance of personal beliefs towards behavior while attempting to accomplish the goal or mission (Bandura, 1986). Harvey (1986) believed that an individual belief is a symbol that aids the individual in behaving and thinking effectively in the real world. Nash (1989) argued that many human activities that have had great impacts on helping ethics and beliefs to extend to natural ecology. Cursorily, it is well expected that people in rural areas with restricted facilities would be more sensitive towards environmental problems and more concerned about them than those people who live in more socially advantaged circumstances. The later are those who have the most hazardous and filthy jobs and more often live in the affliction urban areas close to hectic roads, toxic waste sites, contaminating factories, power lines and polluted water. For a diversity of motives, predominantly among men, there is not the concern that this situational proof might advocate. There is sufficient evidence that environmental consciousness is greater among higher income middle classes, but as pointed out, this is not total representation of that social stratum. Overall, there is, little relationship between gross sales SMEs earn...
every month with their environmental concern. Those owners or managers with higher level of education, particularly in the social sciences, humanities and creative arts, tend to display moderately to strongly related to concern therefore the way they maintain the social impressions.

The last hypothesis was not supported. Environmental consciousness does not have significant influence on the quality of green marketing practices by small businesses. The finding does not support previous works alleging it is very important to maintain and manage the relationship between humans and their environment in order to achieve improved environmental quality (Hopwood et al., 2005; Glavič and Lukman, 2007; Hinds and Sparks, 2008). As environmental consciousness is a composite concept encompassing intrinsic and extrinsic factors, social and cultural ones (Kollmuss and Agyeman, 2002). Lack of pressure from the Indonesian government on environmental issue lead SMEs to be less conscious on the environments. Instead of imposing mandatory regulation on environmental reporting, the government endeavor voluntary one. To maintain the balance between humans and the environment, the government needs to develop a system of environmental awareness to prevent further destructions on the environments as a result of irresponsible human actions (Kollmuss and Agyeman (2002), Steg and Vlek, (2009). In addition, researchers such as Hines et al. (1986) have endeavored to build models of the factors that previous inquiries recommend are related to environmental concern. Such models make a peculiarity between cognitive variables or the levels of indulgent of environmental disputes and determining actions as a way to approach the issues; psycho-social variables that include attitude towards environmental issues; locus of control or feelings of efficacy-capacity to bring about change; and sense of responsibility to do something to reduce environmental degradation; and finally, demographic variables such as gender and level of educational attainment. Hines and her associates concluded that psycho-social variables in general have robust associations with responsible behaviour than do demographic variables.

CONCLUSIONS AND IMPLICATIONS

Conclusions
The result of study revealed that green innovation, greening the process, green alliances, social impression had positive association with the quality of green marketing practices by export oriented SMEs in Banyumas regency. However, environmental consciousness does not appear to have significant influence on green marketing quality practices. In addition, company’s image or social impression is revealed to be the most dominant factor influencing green marketing quality practices.

Implications
Every firms should start adopting high quality green marketing practices to avoid cynicism from customers as a result of green washing. The demand of green products in the market indicates an increasing trend as everyone feels responsible to environmental safety. The issue of going green is pervasive and massive around the world. Consumers consider ‘green’ content as requirement for buying decision. Green products may give more satisfactions for some customers because by buying green products, they have displayed responsibility in keeping the environment safe. For the company’s side, going green has been perceived as giving value added to customers as a way to gain competitive advantages. Some companies have even paid big attention to this issue in order to be perceived as having additional value.

In Indonesia, some parties have demonstrated big concern to the importance of going green behavior. They consider the ‘green’ factor in making decision. For example, some financial institutions in Indonesia would give more opportunities to the green companies to get loan with lower
Determinants of Green Marketing

Motivated by the huge appreciation from the market toward the green behavior, some companies voluntarily report their environmentally friendly behavior through Corporate Social Responsibility (CSR) report as a complementary to their financial statement. They realize that reporting such activities will be positively valued by the market and many researches had given evidence on the relationship between CSR reporting and firm value. The result of this study also proved that one of the motivations of doing environmental friendly behavior is to create a good company’s image.

Considering the great motivation to go green among companies and societies, marketing and business practitioners should appropriately respond to this issue. This impetus may give opportunities to the marketers and business practitioners. The movement of going green may put the green products to be the first choice of people. Hence, a marketer of green company will have more chances to promote the green product in order to the product be accepted in the market. Besides giving opportunities to the marketer, the going green movement can be a strategy of marketers to win the market as well. Therefore, it needs to be taken into consideration when a marketer makes plan regarding to the product selling.

This study has some limitation concerning number of sample, limited geographical coverage, as well as choice of independent variables. To increase the generalizations on green marketing quality practices, future study can add more sample, extend the study to different region and may as well be conducted using experimental design as a methodology. Variables such as business scope, number of employees may be considered as controlling variables. Another controlling variable could be gender. It has been hypothesized that women’s greater involvement multi tasking carer such as child-care and education, cooking, cleaning and shopping encourages concern about the effects of contamination of air, soil and water on humans. The extension of women’s greater nurturant role into the labour market, may influence they way they perceive environmental safety.

REFERENCES


Steg, L. and C. Vlek. 2009. Encouraging Pro-Environmental Behaviour: an Inte-


