

# Environmental Business Attitudes and Behaviors (Study on SMES in East Java, Indonesia)

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*Abstract:* Small and Medium-Sized Enterprises (SMEs) are the dominant type of business in Indonesia. As a dominant business, SMEs can reduce unemployment through the use of labor, contributing to Indonesia's GDP, and so forth. However, the production behavior carried out by SMEs gives many adverse effects on the environment, such as pollution. The purpose of this study was to describe the environmentally sound production behavior of SME producers ecologically. The design used in this study was qualitative research. The informants in this study were 16 owners of SMEs. The research instrument consisted of interviews, participant observation, and documentation. The study reported there were still SMEs that did not do waste management so that it harmed environmental sustainability such as water, air, and soil pollution. Besides, the positive attitudes of the owners of SMEs related to environmentally sound businesses were not always following the behavior of the owners of SMEs.

*Key - Words:* attitude; behavior; environmentally sound; SMEs;

## 1. Introduction

Small and Medium Enterprises (SMEs) are the dominant type of business in almost every country including Indonesia. According to the Directorate

of Development of SME and Cooperation (2016), in 2015, the number of MSMEs in Indonesia was about 60.7 million units, and most of them were micro business (98.73%). SMEs in Indonesia have a central role in forming Gross Domestic Product

(GDP), reducing unemployment, investment, and export.

The high number of SME in Indonesia gives a significant consequence in realizing a sustainable environment. The lasting consequence has brought new concerns and pressures to the innovative activity of the company and reduced the impact of the environment from their activity (Cuerva, Triguero-cano, & Córcoles, 2014); (Struwig & Lillah, 2017). This case is because the environmental problems caused by SMEs are also concerning as that of the big-scale company. The owner of SMEs should improve ecological knowledge and awareness since the sustainability of life on this earth is determined by the sustainable industry (Nulkar, 2014). Generally, knowledge is considered a basic pre-requirement of someone's behavior (Gifford & Sussman, 2012).

(E. Walker, Redmond, & Giles, 2010) said that a small company gives a significant negative effect on the environment. The industrial pollution resulted is 60%, but the owner/manager of the small companies do not understand the importance of behavior change. Meanwhile, (Schaper, 2001), stated that global pollution resulted by SMEs reaches 70%, but the role of SMEs in sustainable development is often ignored. (Natarajan, 2012) also addressed that the significant number of SME often causes environmental problems for many things that are not managed and they do not have an environmental management system. Even SMEs are often inactive, and sometimes they do not realize the environmental effect of their activities. (B. Walker, Redmond, & Goeft, 2007) also told that some pieces of research showed that small enterprises had not been engaged in the environmental problems. The small enterprises often ignore the participation in the debate of the obligation of changing the severe environmental problems in their business. Whereas, nowadays, the world is facing serious environmental issues such as global warming, air pollution, and drinking water scarcity (Steg, Bolderdijk, Keizer, & Perlaviciute, 2014).

In Indonesia, the research that discusses the effect of economic activities of SMEs on the environmental problem is still minimum. Meanwhile, there is an essential problem to research between SMEs and the environment. Environmental responsibility will play a significant role in motivating SMEs to behave in a pro-environment manner (Hamann, Smith, Tashman, & Marshall, 2015). This study aimed to describe

understanding, attitude, and behavior of environmentally sound production of SMEs.

## 2. Literature Review

### 2.1 Environmental Knowledge

Someone's knowledge related to any subject is multi-layered knowledge. Environmental knowledge is someone's ability to identify many symbols, concepts, and behaviors related to environmental protection (Laroche et al., 2001). Meanwhile, (Kollmuss & Agyeman, 2002) defined knowledge as a source where environmental attitudes are formed, and the behaviors are manifested. However, knowledge does not mainly determine the form of ecological behaviors.

### 2.2 Environmental Attitudes

Attitude is an individual's opinion and trust to the others, goods, and ideas, or in other words, the way of people in seeing the world (King, 2017). Attitude is a disposition to well or unwell respond to the object, people, institution, or occurrence (Ajzen, 2005). Environmental attitudes are a group of belief, influence, and intention of someone's behaviors related to environmental problems (Schultz, Shriver, Tabanico, & Khazian, 2004).

According to Manstead (1996) and Strickland (2001) as quoted by (Hanurawan, 2010), attitude consists of three components namely (a) cognitive evaluative response that is the description of someone's way of interpreting object, event, or situation as the target of attitude, (b) affective evaluative response of attitude that is the feeling or emotional correlated to certain object of attitude, (c) behavioral evaluative response of attitude that is the tendency to act in certain ways to the object of attitude

Hines et al., (1986) as quoted by Kaiser, Wolfing, & Fuhrer, (1999) stated that two types of environmental attitude useful for predicting ecological behavior namely (a) attitude to the environment, (b) attitude to ecological behavior.

### 2.3 Ecological Behavior

Ecological behavior is a behavior aiming at minimizing the negative impacts of human on nature and artificial environment (Kollmuss & Agyeman, 2002). Pro-ecological behavior is classified in the domain of an individual's mind morality namely normative concern (Thøgersen, 1996). Social pressure felt by individual influences ecological behavior. Many strategies can be used to

change the awareness of ecological behavior, for example, through the example of ecological behavior of leaders of a community, respected people, and the use of social media (Mancha & Yoder, 2015). Individuals also influence the environment via other behaviors such as affecting the behavior of the organization where they work. The determinant of an individual's behavior in an organization tends to be different from political or household behaviors (Stern, 2000).

There are four ecological behaviors that can be done by individual namely (i) ecological activism such as active involvement in the environmental and demonstration organization, (ii) non-activist behavior in public room including environmental citizenship behavior such as proposing petition of environmental issues and supporting policies protecting environment, (iii) environmental privatism (such as green consumerism), and (iv) significant environmental sound behavior including individual's behavior in organization (Turaga, Howarth, & Borsuk, 2010).

#### 2.4 Small and Medium Enterprises in Indonesia

The criteria of small business in Indonesia based on Law No. 20 of 2008, 2008 are as follow: (1) having net assets of maximally Rp. 200.000.000,- (two hundred million rupiahs), not including land and the building of the business place; (2) having sale results of maximally Rp. 1.000.000.000,- (one billion rupiahs); (3) owned by Indonesian citizen; (4) independent, not as a subsidiary or company branch that is owned, mastered, and directly or indirectly affiliated with medium or big enterprises; and (5) in the form of individual business, illegal entity business including cooperation.

Meanwhile, the criteria for medium business (industry) of government is under Instruction of President Number 10 of 1999 is as follow: (1) Having net assets more than Rp. 200.000.000,- (two hundred million rupiahs) up to maximally Rp. 10.000.000.000,- (ten billion

rupiahs) not including land and building of business place; (2) owned by Indonesian citizen; (3) Independent, not as a subsidiary or company branch that is owned, mastered, and directly or indirectly affiliated with big company; and (4) in the form of individual business, both in illegal entity business or legal entity business.

This research is descriptive qualitative research. The data obtained by the researchers from the informant are explained based on the phenomena that happened in the field related to environmentally sound economic behaviors of SME producers. The research design used in this research is a case study. According to (Stake, 1995; Yin, 2009, 2012) as quoted by (Creswell, 2014), a case study is a research design where the researchers develop the in-depth analysis of a particular case such as program, agenda, activity, process, or one or more individual/s. The cases were limited by time and activity, and the researchers collect detailed information using many procedures of data collection during a continuous period.

The subject of this research consisted of four SMEs namely SME of Batik SME of Rambak, SME of Tahu, and SME of Tapioca Flour. The informants in this research were 16 people consisting of the owners of SMEs, manager, and the employees of the four SMEs. The procedure of data collection was done by interview, participant observation, and documentation. Data analysis consisted of three stages namely reduction, data presentation, and drawing conclusion.

### 3. Results And Discussion

The research findings of environmentally sound economic attitudes and behaviors of SMEs are summarized in the following table:

NO	FOCUS OF RESEARCH	SME of Batik	SME of Rambak	SME of Tapioca Flour	SME of Tahu	RESEARCH FINDING
1.	<b>Understanding of Environmentally Sound Business</b>					
	Understanding of definition of environmentally sound/ environmentally-friendly business.	Having limited understanding of definition of environmentally sound/ environmentally-friendly business.	Having limited understanding of definition of environmentally sound/ environmentally-friendly business.	Having limited understanding of definition of environmentally sound/ environmentally-friendly business.	Having limited understanding of definition of environmentally sound/ environmentally-friendly business.	The owners of SMEs had limited understanding of definition of environmentally sound business.
2.	<b>Environmentally Sound Business Attitude</b>					
	The owners of SME had favorable attitudes (supportive) to the environmentally sound business.	The owner of SME had favorable attitudes (supportive) to the environmentally sound business.	The owner of SME had favorable attitudes (supportive) to the environmentally sound business.	The owner of SME had favorable attitudes (supportive) to the environmentally sound business.	The owner of SME had favorable attitudes (supportive) to the environmentally sound business.	The owners of SMEs had favorable/supportive/agreement attitudes to the environmentally sound business.
3	<b>Ecologically Sound Behavior</b>					
	Raw material	Using synthetic dye	<ul style="list-style-type: none"> <li>Using dry and wet cowhide and buff.</li> <li>Using limestone.</li> </ul>	The raw material was cassava.	The raw materials were local and imports soy. The additional material was vinegar.	Some SMEs still used the raw material which is harmful to the environment.
	Production process	<ul style="list-style-type: none"> <li>The dye was weighed well</li> <li>Minimizing the smell of wax in the</li> </ul>	<ul style="list-style-type: none"> <li>Using more dry cowhides and buffs than the wet ones.</li> <li>During the</li> </ul>	<ul style="list-style-type: none"> <li>Production was not carried out everyday but it depended on he</li> </ul>	<ul style="list-style-type: none"> <li>The waste results were the pulp of tahu and liquid waste.</li> </ul>	<ul style="list-style-type: none"> <li>Some SMEs had not applied environmentally sound production.</li> <li>The production process had</li> </ul>

		<p>production process to prevent pollution by creating a high wall.</p> <ul style="list-style-type: none"> <li>• All types of batik (manual, printing, and stamp) were washed in the river.</li> <li>• Much water was used in the process of batik production</li> </ul>	<p>production process of the wet cowhides and buffs, the waste results were the leather, liquid, and the used limestone.</p> <ul style="list-style-type: none"> <li>• During the production process of dry cowhides and buffs, the waste results were liquid waste and used limestone.</li> </ul>	<p>sunlight and modal.</p> <ul style="list-style-type: none"> <li>• The waste results were the rest of pulp, liquid waste, and strong scent (during drying process).</li> </ul>		<p>not guaranteed safety for the employees.</p>
	Waste management	<ul style="list-style-type: none"> <li>• Did not manage the liquid waste.</li> <li>• The waste of cloth for making the dress was used to make accessories, and so forth.</li> </ul>	<ul style="list-style-type: none"> <li>• Doing liquid waste management by making IPAL independently.</li> <li>• The waste was the leather directly thrown away to the landfill.</li> </ul>	<ul style="list-style-type: none"> <li>• The pulp of tahu was used for livestock feeding.</li> <li>• Did not manage the liquid waste.</li> <li>• There was no real action to reduce the strong scent during the drying process.</li> </ul>	<ul style="list-style-type: none"> <li>• The pulp of tahu was used for livestock feeding.</li> <li>• Did not manage the liquid waste.</li> </ul>	<p>Some SMEs had not managed the waste.</p>

### 3.1 The Businessman's Understanding of Environmentally Sound Business

Based on the analysis, the research finding of this focus 1 is the businessmen had a limited understanding of the environmentally sound economy. This case supports the research results of (Natarajan, 2012) stating that SME has a low understanding of sustainable practices. The knowledge and understanding of the law of environment of SME are low, and thus the support from the organization is necessary (Wilson, 2011). (Patton & Worthington, 2003) also stated that SME has a low knowledge of the environmental problem and the law as well as the rule of the environment.

Most of SMEs have a low understanding of environmental impact (Ferenhof et al., 2014). The lack of knowledge is the main reason for the SMEs that are finally left behind in term of sustainable management compared to the big companies (Hörisch, Johnson, & Schaltegger, 2014). According to (Chan, Hon, & Chan, 2014), the individual's environmental knowledge will influence awareness, concern, and ecological behavior.

### 3.2 Businessman's Attitude toward Environmentally Sound Business

The research finding in this focus 2 is that the owners of SME supported/agreed with the environmentally sound business. The research results of (Maleki & Karimzadeh, 2011) reporting that the environmental attitudes significantly correlated to behaviors. (Gadenne, Kennedy, & Mckeiver, 2009) also stated that the owners of SME are aware of the importance of the benefit of environmentally sound practice in the future. Unfortunately, the environmentally sound attitude of the owner of SME is not automatically manifested into the practice of proactive environmentally behavior. (Merritt, 1998) also addressed that most managers profoundly care about environmental management.

The attention of managerial, visionary management, resources, and ability are the key factors in developing eco-innovation (Díaz-garcía, González-moreno, & Francisco, 2015). (Chan et al., 2014) also stated the improvement of awareness and care of the environment would enhance ecological behavior through the implementation of green practices. Individual's awareness will increase

the intention to behave environmentally friendly (Sanchez\_Medina, Romero-quintero, & Sosa-cabrera, 2014). Besides, the businessman's attitudes will be the determinant of proactive environmental strategy (Testa, Gusmerottia, Corsini, & Passetti, 2015).

### 3.3 The businessman's behaviors in obtaining raw material, production process, and waste management

The research finding of this focus 3 showed that there were still SMEs which used environmentally harmful raw material and did not manage the waste. (Kollmuss & Agyeman, 2002) expressed that environmental behavior is a complex arrangement consisting of knowledge, value, environmental attitude, and emotional engagement. Meanwhile, the external factors that form behavior are social and cultural factors. The research results of (Barr & Gilg, 2007) also showed that individual's behaviors could be mediated by the intention to behave. An individual who is intent to do something will possibly act in a certain way compared to someone who does not express his intention (Hines, Hungerford, & Tomera, 1986). However, according to (Tanner, 1999), the factor of attitude should not be understood as a direct predictor of environmental behavior. Some other factors are influencing the implementation of responsibility for environment and green practice namely social expectation, organizational support, and pressure from stakeholder (Wan, Young, Kim, Ei, & Kim, 2016); (Singh, Jain, & Sharma, 2014).

The owners of SMEs in Indonesia face some obstacles to adopt environmentally sound economic behavior. Such barriers relate to financial, time, ability, and the orientation of the SME. This case is in line with the research result of (Pinget, Bocquet, & Mothe, 2015), that also reported that the most significant inhibitor for SME to apply the green practice is a financial problem. SME does not adopt green practice since it will spend high cost (Massa, Farneti, & Scappini, 2015); (Zhang, Wang, & Lai, 2015). (Walker & Redmond, 2015), stated that small enterprise with limited resources and the lack of time encourage SME to undo the operational change in all management areas.

The size of SME does not influence the obedience to environmentally sound behavior. The SME with a significant number of

employees does not automatically have ecologically sound behavior. This case is contrary to the research results of (Pinget et al., 2015; Lynch-Wood & Williamson, 2013; Reyes-rodríguez, Ulhøi, & Madsen, 2016; Aldehayyat, 2015; Hörisch et al., 2014; Triguero, Mondejar, & Davia, 2014; Wan et al., 2016; Pinget et al., 2015; Hoogendoorn, Guerra, & Zwan, 2015) that reported the size of the company will influence the green practice.

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