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Green Marketing Performance Measurement: Natural Color Batik SME's

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Abstract:

The strategic issue to achieve competitiveness in the era of globalization is environmental problems, one of which is the coloring process in batik. Meanwhile, the development of Batik SMEs is still dominated by the use of synthetic dyes. The tendency to use chemical dyes is because the production process is easier and the coloring results are bright. But on the other hand the use of synthetic dyes raises environmental pollution problems. Disposal of batik dyes that are not managed properly can contaminate the river and seep into community wells, thereby reducing the quality of water used by the community. Therefore, in several countries such as Germany and Netherlands, it has banned the use of chemical-based dyes in textile production since 1996. The issue of marketing performance measurement is still a classic debate, where as a construct, marketing performance has a multi-dimensional nature that contains various objectives and character of the organization. This paper aims to present a literature review on the measurement of green marketing performance. The findings generated are adding a new concept of marketing performance measurement that already exists. The increasing performance of green marketing is expected to attract Batik SMEs who still use synthetic colors to switch to natural colors, towards achieving sustainable development goals.

Keywords: Measurement, green marketing performance, natural batik, environmental

1. Introduction

Environmentalism that is manifested in sustainability is described as an increasing concern about environmental degradation caused by employers' selfishness in pursuing economic growth. Therefore, the idea of sustainable development must run parallel, along with efforts to achieve economic growth, and will ensure effective protection of the environment globally. The discussion about the relationship between Social, Economic and Environmental [1] continues to grow. Previous research has shown that the challenge of balancing environmental, business and eco-friendly business objectives must prioritize which is more important in decision making [2], [3].

As the global market continues to grow, the pillars of sustainability (i.e., environment, economy and social justice) are increasing, as part of marketing decision making [4]. Developing a green marketing strategy (ecological marketing), which includes efforts to produce, promote, package and reclaim products in a way that is sensitive or responsive to ecological problems, has received great attention [5]. Green marketing strategies will follow consumer consumption concerns [6], and increasingly develop [7] to improve green marketing performance.

This paper is conceptually focused to address the unresolved problems of the results of research that have been conducted relating to improving marketing performance in green businesses. Therefore, researchers are interested in deepening the results of previous studies to find novelty that is adding indicators of measurement of green business marketing performance. This study aims to add marketing performance measurement instruments for green businesses based on the results of research conducted by researchers at natural color batik SMEs in Central Java, Indonesia. The writing of this article begins by explaining sustainability, describing the natural color SMEs of Batik in Central Java, discussing the dimensions of green marketing performance. The third part presents the research methodology, followed by the results and findings, concluding with a conclusion.

2. Literature Review

2.1. Sustainability

The Sustainable Development Goals set by state leaders on 25-27 September 2015, have set 17 Sustainable Development Goals and 169 Targets to show global leadership in strengthening universal peace, eradicating poverty in all

forms and dimensions, and protecting the universe from degradation through sustainable consumption and production. Targets are applied universally and can be measured in balancing three dimensions namely environmental, social and economic to minimize the negative impact of economic activities on society and the local and global environment [8]. This study refers to the twelfth goal of ensuring sustainable consumption and production patterns, through sustainable management of natural resources and reducing environmental pollution caused by synthetic raw material waste, in natural color batik SMEs in Central Java, Indonesia.

The growing concern for the environment makes the concept of green business a market demand for safety and environmental sustainability. Green business is a business paradigm that advocates doing business for profit, corporations must also care and commitments and take responsibility for the preservation of the environment of the universe (planet) so as to improve the welfare of society[8]. The benefits and benefits to be achieved by companies involved in green business are improved financial performance and superior markets (Punitha & Rasdi, 2013).

Environmental damage as a cause of climate change and disasters that harm society, can be controlled only by changing the behavior of owners and business people to be more environmentally friendly in managing their business[9], [10]. An integrated environmental management strategy that includes the development of an organizational structure, system and green culture is carried out by implementing and obeying all regulations on environmental management such as raw materials, waste, use of natural resources and the use of production technologies that produce minimal waste and applying environmental awareness commitments. The extraordinary growth of the new green industry indicates positive attention by marketers. There is some evidence that various types of companies are turning to adopting green philosophies such as traditional manufacturing companies becoming more profitable after turning green manufacturing systems[11].

2.2. Natural Color Batik SME's

One of the economic activities often associated with environmental protection is the batik industry. The production of batik perceived by people always leads to an activity that pollutes the environment because of the use of chemical/synthetic dyes and production processes that are less in favor of the environment. Concerns about environmental pollution due to the batik industry are still quite high. This is because many batik industries still carry out their waste disposal carelessly by flowing into rivers. Batik waste with synthetic dyes that are not properly processed can produce colored liquid waste, pH of the solution affected by alkalis and hot temperatures. Externality problems in the environment, namely heavy metal pollution and odor through river, will have an effect on human health and biota in river waters that are used as drinking water, irrigation of agricultural land, fisheries, and so on. Therefore, the environmentally friendly batik process is developed by using natural dyes known as Eco-batik [12].

Eco-batik is a batik that is based on clean production, which is a preventive, integrated and continuously applied environmental management strategy for every activity from upstream to downstream related to production processes, products and services to improve the efficiency of the use of natural resources, preventing the occurrence of environmental pollution and reducing the formation of waste at its source so as to minimize risks of human health and safety and environmental damage. To develop eco-batik to be widely known by the community and to maintain business continuity, ecological marketing is needed which is expected to improve the performance of green marketing.

Batik is the wealth and identity of the Indonesian people which has philosophical meaning, local wisdom, both traditional and contemporary artistic wealth, and has cultural diversity. Batik is a nation's asset that has received recognition from UNESCO (United Nations Educational, Scientific, and Cultural Organization) as a tangible cultural heritage on October 2, 2009. The awarding encourages the growth of batik entrepreneurs who continue to develop. The number of batik business units from 2011 to 2016 grew by 14.7% from 41,623 units to 49,000 units.

Batik UKM in Central Java is still dominated by the use of chemical dyes rather than those using natural dyes. The process of making batik using chemical colors is relatively more practical, easier, and the price of raw materials is also cheaper and the results of coloring are bright. Chemical dyes can have an impact on the health of body skin and batik waste with synthetic dyes that are not treated properly and can properly produce colored liquid waste, heavy metal pollution and odor, so it has the potential to damage the environment. This article refers to the aim of ensuring the pattern of production of batik natural dyes through sustainable management of natural resources and reducing environmental pollution and improving the performance of green marketing[13], [14]. The goal of environmentally friendly marketing is to create profits and maintain social responsibility[15].

2.3. Green Marketing Performance

Marketing performance is a measure of the results achieved by a company from marketing activities or company operations[16]-[18], in the form of: market measurements, customer value perceptions and benefits derived from these marketing activities. Marketing performance can be reflected by the acquisition of market share, market share growth, sales growth, profit growth and shareholder value[19], [20], [21], measure marketing performance from how the company is able to generate profits from each customer, and the position of the company in competition. The inability of marketing managers to determine the costs incurred in contributing to the increase in the level of corporate profits is caused by the difficulty of designing indicators to measure marketing performance [22], [16]. The review of several marketing performance measurement literatures revealed by [22]includes marketing effectiveness, marketing efficiency, marketing productivity, and marketing metrics.

The measurement of performance intended is to prove that marketing has quantitative contribution to the level of profitability that the company has achieved, making it easier for policy makers to monitor marketing programs. However, previous marketing performance measurements have not touched and contributed to economic sustainability in the

future. Ecological conditions are not taken into account, so the damage to nature continues to threaten. In empirical research, [23] classifies environmental performance into processes, resource consumption, emissions and waste, efficiency, risk, ecological impact, consumer perceptions and actions related to financial impacts. [24] developed a more systematic approach by separating performance indicators from impact indicators. Various different company environmental indicators are used such as conceptualizing the environmental benefits of the company [25], measuring environmental performance [26], [27]. How to measure a company's environmental performance correctly and some scientists request further research on measuring environmental performance of a company [28], [29]. [30] recommends measuring environmental performance of companies more coherently with a more comprehensive derivative of the company's environmental theory. Crucially the outcome size and appropriate metric categories do not measure inputs and outputs but their impact on stakeholders, for example, customers, employees, investors, and society as a whole. Perceived performance includes environmental assessment, environmental funds, and environmental related events (Gunther et al. 2004). Some strategic policies and product consequences of green initiative adoption as a marketing strategy were also carried out by Sharma, Iyer, Mehrotra, & Krishnan (2010). Banerjee, Iyer, and Kashyap (2003) initiated a discussion about the environmental impact of the company on performance results, including profitability, market share, and customer loyalty.

Green marketing performance is a managerial perception of a company's ability to pay attention to environmental impacts in carrying out its production processes to achieve market share, sales growth, increase profitability, brand equity, customer satisfaction and loyalty. However, research related to past marketing performance measurement has not touched and contributed to economic sustainability in the future. In previous studies, marketing performance measures can be obtained through marketing function activities consisting of market share, customer satisfaction, customer loyalty/retention, brand equity, and innovation[22]. [31] highlighted eight variables to measure organizational performance consisting of customer satisfaction, employee morale, sales growth, profitability, productivity, quality cost reduction, financial performance and environmental performance.

3. Methodology

This study uses qualitative research, most research related to green business uses quantitative methods[32]. In accordance with the inductive nature, researchers who use qualitative methods must be open to the possibility of the emergence of new concepts, comparing and differentiating data. Sources of data obtained from the research field that is looking for data plunge directly into the object of research to obtain concrete data relating to the problem under study. In qualitative research using a term called an informant, which will be interviewed in depth relating to the issues to be examined and discussed in this study. To achieve the research objectives, researchers gained deeper insights about the practice of ecological innovation and the ecological commitments made by natural color batik SMEs in Central Java, Indonesia, through interviews, company records and other data sources. Literature search and review are also used to enrich ideas as researchers prepare to think about various things and possibilities related to interview guidelines. Data analysis techniques used in this study include interview transcripts, data reduction, and triangulation. Interviews and direct observations based on open-ended questions given to respondents in the research dissertation researchers related to the influence of ecological innovation and ecological commitment to the performance of green marketing. Data reduction is a form of analysis that sharpens, classifies, directs, discards unnecessary, and organizes data in such a way that the conclusions can finally be drawn and verified. Triangulation is a data validity checking technique that uses something else in comparing the results of interviews with research objects. The flow of research can be seen in the Figure 1.

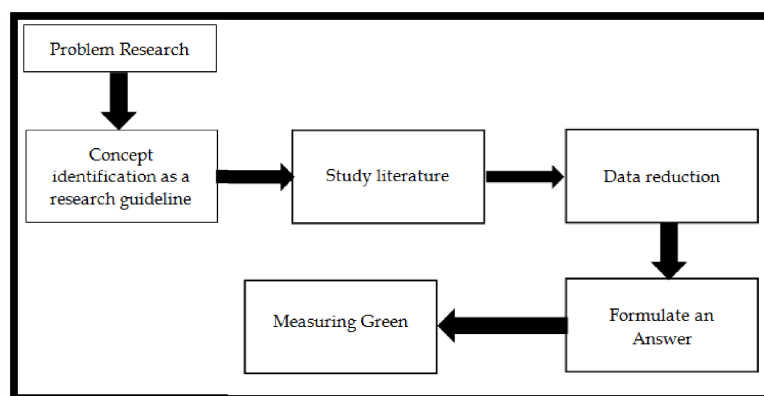


Figure 1: Research Workflow

4. Result and Discussion

The research activities are carried out based on the planned stages, interview questions and answers given, as follows:

4.1. Where Do the Raw Materials for Natural Dyes Come From?

- Indonesia is known for its fertile land, so it is easy to get natural coloring plants, ecological entrepreneurs can grow their own plants containing dyes on the land in their neighborhood or business for the efficiency of raw materials.
- For the efficiency of the cost of raw materials for dyes, education needs to be improved for ecological entrepreneurs on how to process natural dyes obtained from plant parts such as roots, stems, wood, bark, leaves and flowers
- The types of plants that can be used as raw materials for natural dyes are areca nut seeds, noni root plants, mangos teen rind, guava leaves, soja trees, indigo leaves, turmeric, kesumba, teak young leaves, mahogany bark.

4.2. How to Dispose of Batik Dye Waste?

- The awareness of ecological entrepreneurs not to pollute the environment in the production process is realized by managing waste by creating a Wastewater Management Installation (WWTP) both personally and communally.
- After the dyeing process, the waste is collected into a tub or place used to collect the waste, then neutralized with acidic-base substances before flowing into the river.
- Treated waste can be channeled into rivers or used to water nearby plants without causing concern to damage the environmental ecosystem. Operationally, all categories of answers formed must be read in a manner

4.3. How Does SME's of Natural Color Batik Manage Environmental Resources?

- Government and non-governmental organizations that care about the environment hold counseling and training to make natural colors.
- The increase in resources is done by including the batik training in how to extract / make natural dyes and the coloring process.
- The higher awareness of batik SMEs who understand the importance of protecting the environment, the higher the switch.

Observation on natural color batik UKM in Central Java, Indonesia shows that natural color batik UKM is able to develop ecological innovation in its production process. Processing natural dyes which are the result of extraction from leaves, stems, skin, flowers, fruit, plant roots with levels and types of coloring matter, namely organic compounds contained in natural dyes. Some color carriers can be used directly, and some must go through extraction or fermentation first. The method of extraction to obtain a color carrier group is very varied and will affect the color that is caused[33]. Batik coloring with natural dyes produces batik products with an appeal to natural, unique, ethnic, and exclusive characteristics, so that it has high market potential. The motive of natural color images by elevating the local wisdom of a region's culture, becomes its own attraction in product innovation. This supports the results of empirical testing of the positive and significant influence of ecological innovation on the performance of green marketing.

Product innovation (i) "can take the form of large or small changes in the materials used, in technical specifications and in the characteristics of products or services"; process innovation (ii) "intended to reduce costs, improve the quality and supply of products or services and include improving techniques in additional support activities"; organizational innovation (iii) "refers to new, significantly improved routines, business models, methods and actions that change company practices, relationships and decisions"; and marketing innovation (iv) "can occur through changes in product design, product placement, communication, new methods of product delivery, promotion strategies or pricing. In addition, significant changes in product packaging are also considered as important marketing innovations. Ecological innovation, requires changes in raw materials or components used, logistics and technical integration with external partners and product redesign. Technical and organizational interdependence with suppliers and business customers is increasing to close the production cycle and increase recycling[34]. In addition, achieving products that reduce environmental impact is a rather complex task and often requires information and skills that differ from those based on traditional technology to mastery.

The motivation for companies to build green innovation is the ecological responsibility identified in the responses of people interviewed, in the process of green innovation very much depends on leadership. Therefore, environmental leadership becomes more prominent considering the size of the organization and limited resources often make it difficult to implement ecological innovation, this complexity can be an obstacle for SMEs compared to large companies[35]. Likewise,[36] emphasizes that this type of innovation is more complex and more expensive for SMEs.

5. Conclusion

In accordance with the steps of the research procedure, the findings of this study are adding new concepts that can be used to measure the performance of green marketing, namely raw materials for natural coloring, waste treatment, and management of environmentally-based resources. There is still very little research that reflects sustainable marketing strategies [37], so that this area can be explored further. Current ecological challenges require managers to formulate strategies that control pollution and conserve natural resources [38]. Marketing plays an important role in directing companies to improve performance [39]. Some strategic policies and product consequences from the adoption of green initiatives as marketing strategies were also carried out [40]. Therefore, this implies that the involvement of green marketing is very important and can not be avoided to improve marketing performance. Measurement of green marketing performance includes: improving a good corporate image, reducing waste, minimizing costs, increasing customer satisfaction, increasing productivity, increasing market share, and of course profitability [41]. This finding can be used as a

reference to add measurement indicators of previous marketing performance such as sales growth, customer growth, profitability, customer satisfaction and customer loyalty.

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