

Environmental Awareness of Batik Entrepreneurs in Kelantan, Malaysia – An Early Insight

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Abstract

In reality small businesses significantly responsible to environmental degradations because they pay no or little attention towards environment issues as they are preoccupied with matters pertaining to daily business operation as well their limitations in various resources. In Malaysia, batik industry is classified under handicraft product that contributes significantly to the economy of Malays, but the industry has poor environmental record. Yet until recently, issues pertaining to environmental awareness of small business entrepreneurs are under research. In order to fill this academic gap this research aim to investigate awareness of entrepreneurs on environmental issues exacerbated by their businesses. This study utilized in-depth interviews with three entrepreneurs in the industry in Kelantan. Overall, the results of the study found that Batik entrepreneurs had some awareness on environmental issues pertaining to natural environment, but depend on individual. The finding of this research is informative, warrants further efforts from various stakeholders to increase awareness of Batik entrepreneurs on environmental issues because it is considered a perquisite for environmentally friendly practices in the industry.

Key Words: Environmental awareness, Batik entrepreneurs

Introduction

Since in the late 1980s, the business impacts on the environment have become an issue of increasing concern, particularly in developed countries (Gerrans and Hutchinson, 2000; Robbins, 2001). In Europe, environmental concern has been shared by environmental groups and legislators, customers, local communities, public authorities, suppliers, financial institutions and employees (Bubna-Litic and De Leeuw, 1999; Deegan, 2007; Petts et al., 1998). Obviously, when ones talk about environmental issues, ones would imagine of impact of big businesses because of their sheer size, which easily visible. Due to various stakeholders' pressures big businesses could not help but have to comply with environmental laws. However, relationship between small business and the environment are under research. It is

easy to comprehend why it is the case as small businesses have very limited operations *vis a vis* their big business counterparts. Individually, small businesses have less impact to the environment, cumulatively, they contribute significantly to environmental degradations. Past research showed many small business owners believed that they have little impact on the environment (Lee, 2000; Rowe and Hollingsworth, 1996). Actually, their total negative impacts to the environment is too high, surpassing big organizations.

Environmental awareness can be defined as one of components in sustainable development in a country. The lack of environmental awareness among entrepreneurs may cause environmental problems because they do not know their business implications. A sustainable development is not going to be achieved unless small and medium enterprises (SMEs) are also environmentally responsible. In this regard, special attention should also be given to small businesses in order to address environmental degradation in the country. But, one must bear in mind that small businesses is not a little version of big business, in regard of their limitations in terms of resources –finance, human and technology (Tilley, 1999). They need different approaches according to their means in addressing the problems. Measuring environmental awareness amongst entrepreneurs, who run their organisation is a starting point to address environmental issues exacerbated by their activities. Since changing mindset begins with awareness of environmental issues, knowledge in environmental issues should be inculcate amongst small entrepreneurs.

Batik industry in Malaysia is dominated by the two in east coast states of Malaysia- Kelantan and Terengganu. It is classified as a cottage and handicraft industry because it involves the use of means, methods, and tools used are still traditional. Batik has now expanded beyond traditional domain, to go through the process of modernization concepts, techniques and philosophy of its own. Notwithstanding with the progress of the industry, but advancement in environmental management of the industry is too slow. In the batik making process, the effluents are often rich in color and organic pollutants which require a proper treatment before discharging into the environment. It is known that high demand for batik products will contribute to the production of more effluent with high COD value and creating it as one of the main sources of severe pollution in Malaysia.

Realizing environmental impacts of batik process, it is timely to arrest this problem that warrants green practices which are environmentally friendly. The implementation of green industry practices is deemed justified because in the long run it reduces negative impacts on the environment. The benefits for environmental aspects are: no dye spill and chemicals able to absorb directly into the ground or discharged into the public drain and river. Then, the benefits of safety and health are: avoid the workers from physically injured and decrease workers' risk of disease such as cancer that caused by dyes and chemicals exposed. Greens batik has cost benefits like reduction in raw material costs through savings, cost reduction through water conservation, cost reduction through energy conservation (electric, firewood and gas) and reduction of costs for water treatment (Malaysian Department of Environment, 2013).

Amongst various cottage industries, batik industry is chosen as a case. There are a number of reasons. First, the said industry is responsible for water pollution and according to the latest report by department of the state of Kelantan compliant rate of the industry relatively low compared with other industries-65% (DOE Kelantan Report, 2011). This industry produces

wastewater which contributes to water pollution since it utilizes a lot of chemicals. Wastewater from batik industry contains grease, wax, heavy metal suspended solids, and dyes (in painting and coloring processes)(McClatchy, 2011). Second, batik industry is a significant industry in Malaysia. It is a cottage industry which is largely run by Malay entrepreneurs, largely in the two Malay belts state of Kelantan and Terengganu. This industry not only provides income for entrepreneurs but at the same time employed thousands workforces in both downstream and upstream of the industry. The future of Malay craft relies on the survival of the very industry. So, it comes as no surprise to see why this industry has given more priority by government.

Against this background the aim of this paper is to explore the level of environmental awareness of batik entrepreneurs, using 3 entrepreneurs as cases.

Literature Review - Awareness and Perceptions on the Environmental Issues

Environmental awareness is one of the components that is vital in strengthening sustainable development in any countries. A few researchers said that public awareness through educational programs is very important and an essential step toward sustainable developments (A. H. Ziadat, 2009; Young, 1998; Harvey, 1994). The development of environmental awareness among entrepreneurs is one of the key elements in the formation of fundamental solutions for environmental problems towards sustainability.

The phase of industrialization and modernization over the past five decades that has been given no or little attention towards the environment has made SMEs have little knowledge about environmental management and do not understand the concept of environmental management. Therefore, SMEs have difficulty understanding the relationship between environmental management and its benefits to organizations and the environment. In the studied by Hillary (1999) in the United Kingdom, negative corporate attitudes towards EMSs and narrow-minded company culture would impede environmental management system (EMS) implementation. At the same time, she found SMEs had a lack of awareness of environmental legislation. The complexities of legislation made further confused matters and deterred the business from fully grasping the implications and many of the SMEs thought that their impact on the environment was minimal and therefore did not realize the extent to which environmental legislation affected them (Stuart, 2000). As a result, many SMEs were reactive rather than proactive when dealing with the environmental issues. There seemed to be lack of awareness and lack of information on waste minimization technologies (Howes, 1997). It also recognized by Smith (1997) that the importance of raising the awareness of environmental issues in the SME sector.

The introduction of a pro – active ‘green ‘strategy within SMEs described by Bianchi and Noci (1998) is problematic and hard to be implemented for two major reasons (i) it requires resources and skills that, in many cases, are not available in SMEs (ii) at present it can hardly be justified from an economic and a competitive viewpoint, since management has to invest significant financial resources (such as new equipment, training, creation of new skills etc), without any certain return in the short term. It must be remembered that most customers do not yet wish to pay a premium price for environmentally friendly products so it is very difficult for SMEs to publicize their efforts in the environmental field. Then, Al-Rabaani et al.,(2009) examined the relationship between student’s attitudes and their willingness to take action to reduce environmental problems like energy problems, water problems, air pollution

problems, waste problems and desertification problems. They found that students were willing to take action to reduce environmental problems and it was not affected by gender or faculty.

In the other studied, Taylor et al. (2003) surveyed a range of business managers from both manufacturing and service sectors and found that most of the managers believed that environmental issues affected their business. Managers of SMEs have been found to see benefits of reducing their businesses environmental impacts, but the financial performance of their business remains the top priority (Petts et. al., 1998b) Petts et al. (1998b) used questionnaires and focused groups to investigate SMEs environmental responsiveness and found that the environment was seen as having a potential business benefit in all companies. This idea was summed up by one of the study's participants with a director of one of the SMEs, stating that the managers doing business and would be pleased if can do something positive for the environment. In each of these SME there was a "green champion" for someone who was highly motivated to make their business more environmentally responsible, each of these champions in the study spoke about personal environmental interests and beliefs but remained focused on business benefits as the primary motivation (Frost, 2011).

According to Russo and Fouts (1997) environmental regulation is seen as an opportunity rather than threat managers might be able to solve problems creatively and identify and adopt innovative technologies and also to develop relationship with stakeholders (Sharma and Vredenburg, 1998). Berrone and Gomez-Mejia (2009) showed that managerial perceptions of the importance of environmental regulation as a competitive opportunity are associated with a more proactive stance on environmental commitment.

Research Methods

This research drawn samples from population of batik entrepreneurs provided by Perbadanan Kemajuan Kraftangan Malaysia Kelantan State (PKKM, 2014). Informants of study consisted of batik entrepreneurs who have premises in Kota Bharu and Bachok. All the interviews were conducted in September 2014.

An interview protocol was used to facilitate interviews. In the early part of interview protocol consist of questions regarding to entrepreneurs background and premise profiles. In the second part consists of entrepreneur awareness of batik industry and the environment. Questions related to the effects of batik industry on the environment, environmental policies and regulations, awareness on environmental issues and health and safety.

The interviews were conducted between 30 minutes to 1 hour at the batik premises. All the interviews were audio-taped with the consent of batik entrepreneurs. The data obtained through interviews with the entrepreneurs were then transferred to word processor verbatim.

The analysis of data was done manually. Coding the questions was based on interview protocol construct. The respondents were namely Informant A, Informant B and Informant C. The results of the analysis of interviews data presented in the form of a narrative form.

Research Findings

Demography

Out of three informants, A and C are male, and B is female. As far as the highest education level is concerned, informants education varies, informant A earned diploma, whereas

informants B and C respectively SPM and SRP. The informant A was the youngest, age 27 years old, both informants B and C were in the middle ages – mid forties. Informant A quite new in batik industry, only 6 years compared with informant B and C who involved in the industry for almost 2 decades. Both informants A and B yet to have children, informants C had 5 children. In terms of number of employees, both informants A and B had 5 employees and informant C had 10 employees. Judging from the number of employees, it can be said all of them were in category of small business. Start-up capital amongst informants varies, the lowest one was informant C who parlayed on RM200 almost 20 years ago. This is followed by informant B who spent RM2,500 and informant A who spent 4 times higher than informant B. When one of the researchers asked all the informants of the last reconstruction of their premises, all the informants admitted that they did not. Table 1 shows a background of informants and their batik premises. Table 1. Background of informants and their business

Informant	A	B	C
Respondent Profile			
Gender	Male	Female	Male
Highest educational qualification	Diploma	SPM	PMR
Age	27 years old	43 years old	47 years old
Years in current job	6 years	15 years	17 years
Number of children	-	-	5 persons
Business Profile			
Number of employees	5 persons	5 persons	10 persons
Capital to run the business	RM10000	RM2500	RM200
Years in operation	1-5 years	1-5 years	More than 10 years
Last substantial reconstruction of premise	2009	2011	2004

Environmental Awareness

When the informants were asked if Batik industry had negative effects on the environment, two of them (A and C) aware that their batik business had negative effects on the environment. Informant B was unaware that their businesses had negative effects on the environment.

Informant A and C that awareness of environmental effects of batik industry admitted that the effluent of batik that contains marooned-colors and soda silicate discharge, and waste of batik wax contributed water pollution and soil contamination. The environmental issues in batik industry cause the death of flora and fauna, have skin problems like allergic, sensitive and itchy skin effected by coloring and batik waxes. In addition, people suffering from burns caused by hot materials.

When the informants were asked what are the major activities carried out that effect the environment by batik firm during the manufacturing process, they said came from major activities - *canting* and coloring. These two informants knew that waste water that contains sodium silicate that dissolved with water need to be properly discharged into the drains. Instead, the unconscious owner-manager (Informant B) argued that the discharge of her batik industry was good environmental issues can be demonstrated by the following quote:

"No, because the water flowing near this premise causes the grass to grow and the materials used are natural.." (Informant B)

When the interviewee tried to reconfirm of types of natural materials (especially dyes) that informant B used in batik process, she said she used the same materials in batik industry. Her answer failed to justify what she claimed.

Referring to the acts and policies that already set by the government, all the informants had no knowledge, for example Informant C said that he did not know and not clear enough about the acts and the environmental policies related to batik industry. He uttered the following words:

"..Applicable environmental laws?..unclear (to me) .." (Respondent C)

When all of the informants were asked about recycle of use waxes they were aware about it, they used them to light fire for boiling the batik fabrics. They did not sell the used waxes but they recycled the waxes.

Air pollution is another issue in batik industry. All respondents aware that air pollution was occurred during *chanting* process where wax is burned and fabric is soaked with boiling water to remove the molten wax. Usage of fire using woods or others created air pollution.

A further question asked informants about health and safety issues of *chanting* batik, informant A agreed that the wax could be dangerous to the safety of workers, beside that, all of them agreed that during the process of dyeing and wax melting affect the health of workers like shortness of breath and sore eyes due to direct exposing to smoke. As a solution, they said they used masks to prevent such a problem. For example of informants said:

" I know..... (We) cover our noses using masks...during the launching of a green batik program, we were given these equipments (masks).." (Respondent A)

" If they (workers) want to melt the wax for canting / painting (they) put on masks.." (Respondent C)

Informant A and C also did not realize that the nails on the frame of the woods for chanting exposed them to danger. Nails caused minor injury if employees not careful enough, sometimes children who come to the workplace would also expose to the danger.

6 Conclusion

This study shows that the level of awareness towards the environment depend on individual entrepreneurs. Not all entrepreneurs have high knowledge about the relationship between batik industry and the environment. One clear indication of this was environmental effects of batik discharge that contains heavy mineral were not treated as dangerous. Although DOE and scientists admitted that untreated batik discharge cause water pollution, one of batik entrepreneurs did not know this issue, and tried to underplay this issue. However, informants had positive perceptions about ways of handling environmental issues. Environmental awareness programs that have been organized by the Department of Environment provided valuable information about green batik industry.

The results of this study show that batik entrepreneurs had little or insufficient knowledge about green batik. Therefore, more comprehensive programmes that inculcate environmental knowledge should be applied to all batik entrepreneurs, especially on what environmental issues exacerbated by batik industry and, how batik goes green to ensure clean production in the future prospects.

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