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Transformation of Muslim Behaviour towards Sustainable Environment: Perspectives of Non-Governmental Organisations in Klang Valley

Transformasi Tingkah Laku Muslim ke Arah Kelestarian Alam Sekitar: Perspektif Pertubuhan Bukan Kerajaan di Lembah Klang

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ABSTRACT

Man cannot depend solely on science and technology to solve environmental problems. In fact, scholars and environmentalists have observed that some of the causes of environmental deterioration are rooted in science and technology. It is clear that environmental problems need ethical solution. However, environmentally ethical behaviour (EEB) is often overlooked in the life of a Muslim. This behaviour is important, particularly, to ensure the future of civilization of the Islamic world and, generally, civilization as a whole. Given the fact that non-governmental organisations (NGOs) are more sensitive to the transformation of public behaviour compared to other groups, this article discusses the perspectives of Malaysian NGOs on the transformation of Muslim EEB in Malaysia in three aspects: (a) The type of EEB practiced by Muslims in Malaysia; (b) The transformation process of EEB experienced by Muslims in Malaysia; and (c) Whether or not the transformation of EEB of Muslims in Malaysia is motivated by the values advocated by Islam. The research adopted a qualitative research method of data collection, i.e., focus group discussions (FGDs). FGD's results illustrated that: (a) Pre-cycling, reusing and recycling are the common types of EEB practiced by Muslims in Malaysia; (b) The transformation process of EEB experienced by Muslims in Malaysia is not accelerating at the speed that we hoped for; and (c) The transformation of EEB of Muslims in Malaysia is motivated more by economic and social factors as well as level of education and regulation enforcement compared to the values advocated by Islam.

Keywords: Muslims; environmentally ethical behavior; Islamic values; sustainable environment; non-governmental organizations

ABSTRAK

Manusia tidak boleh bergantung semata-mata kepada sains dan teknologi untuk menyelesaikan masalah alam sekitar. Malah, ramai sarjana berpendapat bahawa sebahagian daripada sebab-sebab kemerosotan alam sekitar berpunca daripada sains dan teknologi. Ini jelas menunjukkan bahawa masalah alam sekitar memerlukan penyelesaian yang lebih beretika. Walau bagaimanapun, tingkah laku beretika alam sekitar (EEB) sering diabaikan dalam kehidupan seorang Muslim. Tingkah laku ini adalah penting, terutamanya, untuk memastikan masa depan tamadun dunia Islam secara amnya, dan tamadun secara keseluruhannya. Secara faktanya, pertubuhan bukan kerajaan (NGO) lebih sensitif kepada perubahan tingkah laku orang awam berbanding dengan kumpulan-kumpulan lain, oleh itu, kertas kerja ini membincangkan perspektif NGO Malaysia terhadap transformasi EEB Muslim di Malaysia dalam tiga aspek: (a) Jenis EEB yang diamalkan oleh Muslim di Malaysia; (b) Proses transformasi EEB yang dilalui oleh Muslim di Malaysia; dan (c) Sama ada perubahan EEB Muslim di Malaysia adalah berasaskan nilai-nilai yang dianjurkan oleh Islam, atau berpunca daripada faktor-faktor lain. Kajian ini menggunakan kaedah kajian kualitatif dalam pengumpulan data, iaitu perbincangan kumpulan fokus (FGD). Hasil kajian FGD ini menunjukkan bahawa:

(a) *Pra-kitar semula, guna semula dan kitar semula adalah jenis EEB yang biasa diamalkan oleh Muslim di Malaysia; (b) Proses transformasi EEB yang dilalui oleh Muslim di Malaysia tidak mencapai tahap sepertimana yang kita harapkan; dan (c) Transformasi EEB Muslim di Malaysia adalah lebih dipengaruhi oleh kepentingan faktor ekonomi dan sosial serta tahap pendidikan dan penguatkuasaan undang-undang berbanding dengan nilai-nilai yang dianjurkan oleh Islam.*

Kata kunci: Muslim; tingkah laku beretika alam sekitar; nilai-nilai Islam; kelestarian alam sekitar; pertubuhan bukan kerajaan

INTRODUCTION

Behaviour towards environmental sustainability is often overlooked in the life of Muslims in Malaysia (Mashitoh & Ismail 2012). For example, until 2011, there are still many Malaysian Muslims who refuse to buy products that are more environmentally friendly than conventional products and they also refused to contribute to the efforts of environmental protection (Jamilah et al. 2011; Elham & Abdul Wahid 2010). Such behaviour does not secure the future of the Muslim world, in particular, and the future of civilization, in general. Man cannot depend solely on science and technology to solve environmental and ecological problems (Osman 2007; Fachruddin 2015). In fact, many scholars and environmentalists claim that science and technology have partly contributed to the cause of environmental damage (Hance 2010; Butler 2010; Fachruddin 2015). Hence, environmental problems need ethical solution; and thus a Muslim should revert to Islamic values advocated by Islam and make a positive change in behaviour towards the environment.

Therefore, in order to accelerate the transformation process of such behaviour, it is important to study: (a) The type of environmental ethical behaviour (EEB) practiced by Muslims in Malaysia; (b) The transformation process of EEB experienced by Muslims in Malaysia; and (c) Whether or not the transformation of EEB of Muslim in Malaysia is motivated by the values advocated by Islam.

REVIEW OF LITERATURE

Literature reviewed indicate that only a few studies examine the transformation of Muslim behaviour specifically, and none of them study on whether or not the transformation of Malaysia's Muslim behaviour toward environmental sustainability is

based on values advocated by Islam. Examples of such values are: (a) *qana'ah* which means being moderate, thriftiness and thankful to Allah; (b) *mahabbah* which means love and appreciation of the environment; (c) *ihsan* which means wise choice, refrain from harmful acts toward the environment, be accountable of one's act; and (d) *ta'awun* which means teaching one's family to conserve the environment, reduce the use of natural resources, reduce waste, and participate in campaigns on environmental conservation.

Muslim researchers such as Elham and Nabsiah (2010), Jamilah et al. (2011), Nabsiah, Elham & Shyan (2011) and Zamzul Rizal, Rosta & Lim (2014) measure influential factors, other than religion or Islamic values, on the transformation of respondents' behaviour towards environmental sustainability. For example, Elham and Abdul Wahid (2010) study on whether or not individual, government, industry and financial are significant factors in generating positive behaviour towards the environment and found that consumer attitudes toward the role of government and industry in environmental protection, significantly correlated with actual purchasing behaviour of consumers. Consumers believe that actions by government and industry through policies and product designs, pertaining to purchasing behaviour are able to reduce environmental problems faster. However, consumers in Malaysia are not willing to pay higher prices for environmentally friendly products, and they are not willing to contribute financially to support efforts in protecting the environment.

Zamzul Rizal, Rosta & Lim (2014) measure the influence of individual factors such as the level of awareness, knowledge of the environment, the intention to act, and the confidence in the effectiveness of the act, on the transformation of the behaviour of their respondents towards environmental sustainability. Zamzul Rizal, Rosta & Lim (2014) found that respondents were aware

of the effects of air conditioners and automobile to global warming, but did not agree that eating meat and using washing machine are the causes of global warming, and additionally, they perceived that solid waste dumping caused global warming. They also found that the relationship between 'knowledge of the behaviour to reduce global warming' and 'intent to commit such behaviour' is weak. However, the relationship between 'confidence in the effectiveness of actions which reduce global warming' and 'the intention to act' is strong.

In addition, Nabsiah, Elham & Shyan (2011) measure social influence, i.e., knowledge (on the environment, green products, and waste), environmental attitude, environmental protection, and environmental awareness, on the positive and significant green purchasing behaviour of Penang green volunteers. Nabsiah, Elham & Shyan (2011) found that environmental awareness has a positive and significant relationship with the green purchasing behaviour of Penang green volunteers ($p < 0.01$). In terms of environmental knowledge, two dimensions of knowledge, i.e., environmental knowledge and knowledge of green products, are found to have a positive and significant relationship with the green purchasing behaviour of the respondents ($p < 0.01$). The results of the study by Nabsiah, Elham & Shyan (2011) illustrate that volunteers who have high knowledge about the environment and high knowledge about green products, involved more in green purchasing behaviour. They also found that environmental knowledge related to waste (the third dimension) has a positive relationship but not significant with green purchasing behaviour of Penang green volunteers ($p > 0.05$). Additionally, based on the results of the regression analysis, two dimensions of attitude on the environment (environmental protection and environmental awareness) have no significant relationship with green purchasing behaviour of Penang green volunteers ($p > 0.05$). This suggests that environmental protection and environmental awareness are not important factors in affecting the Penang green volunteers to buy green products.

The findings by Elham and Nabsiah (2010), Zamzul Rizal, Rosta & Lim (2014) and Nabsiah, Elham & Shyan (2011) suggest that the transformation of behaviour amongst the Malaysian public towards environmental sustainability occurs through a process that is in accordance with the

current development in the field of environment. The findings by Elham and Nabsiah (2010) and Zamzul Rizal, Rosta & Lim (2014) illustrate that the transformation of behaviour amongst the Malaysian public towards environmental sustainability is influenced by domestic and foreign policy decision-making. Unlike Elham and Nabsiah (2010) and Zamzul Rizal, Rosta & Lim (2014), the findings by Nabsiah, Elham & Shyan (2011) indicate that the transformation of behaviour amongst the Malaysian public towards environmental sustainability are more prone to the influence of NGOs in Malaysia.

On the other hand, studies by other researchers such as Levine and Strube (2012), Baca - Motes et al. (2012), and the Aytekin and Buyukahraz (2013) measure the influences of social, demography, knowledge and individual on the transformation of behaviour of their respondents towards environmental sustainability. Levine and Strube (2012) found that knowledge is closely related to behaviour. Male students have higher knowledge than girls in this sample and those who are more knowledgeable behave more environmentally friendly. Similarly, the role of age in which older students, with more experience in universities, showing a more environmentally friendly attitude. Attitude clearly influenced the intention, and the intention had a strong relationship with behaviour. Baca-Motes et al. (2012) found that attitudes and behaviours operate through separate routes to affect environmentally friendly behaviour. Therefore, this study suggests that interventions, using different mechanisms, targeting both knowledge and attitude will clearly link to behaviour change. The findings illustrate that attitudes predict intentions which consequently predict behaviour and help to explain how attitudes change behaviour. Aytekin and Buyukahraz (2013) found that people who have high knowledge about the importance of the environment, environmental sensitivity and environmental awareness are likely to buy environmentally friendly products. The relationship between environmental interests and environmentally friendly behaviour are also positive. In fact, environmental awareness affects the behaviour of buying environmentally friendly products. The most effective method to resolve environmental issues is by increasing the number of individual who has environmental interest and high level of awareness. To change the behaviour of individuals for the sake of the environment,

they should be educated to get a positive attitude towards the environment. Only individuals who are concerned and sensitive about the environment, and have an interest in resolving environmental issues can make the change in their behaviour.

Moreover, McKay et al. (2013) discovered that applying a religious approach to promote environmental awareness among communities is not a new concept. McKay et al. (2013) and Fachruddin (2010) elaborated that *tauhid* (integration), *khalifah* (guardian), *mizan* (balance) and *fitrah* (nature) are amongst the key principles in Islam governing human role in conserving natural resources. Therefore, McKay et al. (2013) believed that better result could be obtained by raising awareness of Islamic teachings on the environment rather than making efforts to raise general awareness on conservation issues. Besides that, Zeeda Fatimah et al. (2012) found that religious communities may appear to be motivated by their ethical concerns on the wellbeing of the environment. But, the concerns are rooted in the religious ideals and wisdoms that can be translated effectively into practical actions.

The findings of the literature reviewed, thus far, illustrate that very few studies were conducted on the transformation of Muslim EEB by Muslim scholars as well as other scholars.

MATERIALS AND METHODS

Research on the transformation of Muslim behaviour towards sustainable environment employed a qualitative research method, i.e., focus group discussion (FGD). The FGD the thoughts and opinions of members of Malaysian NGOs. Nine informants from six Malaysian NGOs were involved in the focus group discussion (Table 1). The informants were asked on: (a) The type of EEB practiced by Muslims in Malaysia; (b) The transformation process of EEB experienced by Muslims in Malaysia; and (c) Whether or not the transformation of EEB of Muslims in Malaysia is motivated by the values advocated by Islam. Data from the FGDs were recorded, transcribed verbatim into transcripts, and analysed using thematic approach (Bernard, 2000).

TABLE 1. Profile of Informants

Informant	Profession	Gender	Age	Education	Expertise	Malaysian NGO	NGO Location
Informant 1: Mrs. Z	Retiree	Female	55	*MCE	Environment	NGO 1 (WAS - Pertubuhan Warisan Alam Sekitar Malaysia)	Kuala Lumpur
Informant 2: Mrs. N	Lecturer	Female	52	Master's	Law		
Informant 3: Miss N	Postgraduate Student	Female	26	Master's	Environment	NGO 2 (PEM - Persatuan Belia Islam Nasional)	Selangor
Informant 4: Mr. N	Undergraduate Student	Male	21	*MCE	Zoology		
Informant 5: Mr. Y	Manager	Male	44	Diploma	Environmental Education	NGO 3 (GRA - Pertubuhan Alam Sekitar Sejahtera Malaysia)	Selangor
Informant 6: Mr. M	Training Executive	Male	29	Bachelor	Training and Development		
Informant 7: Mr. H	Secretary	Male	60	Bachelor	Social Welfare	NGO 4 (PER - Persatuan Kebajikan Islam Malaysia)	Kuala Lumpur
Informant 8: Mrs. M	Consultant	Female	41	Bachelor	Community Development	NGO 5 (RCO - Recycle Community Malaysia)	Selangor
Informant 9: Mrs. A	Vice President	Female	52	Master's	Environmental Management &Waste Disposal	NGO 6 (IKR - Pertubuhan Ikram Malaysia)	Selangor

*Malaysian Certificate of Education

RESULTS AND DISCUSSIONS

The results of the FGD illustrated that, although pre-cycling or reducing, reusing and recycling are the common types of EEB practiced by Muslims in Malaysia but recycling activity is more popular amongst them. However, the transformation process of EEB experienced by Muslims in Malaysia is not accelerating at a favourable speed; and the transformation of EEB of Muslims in Malaysia is motivated more by economic and social factors as well as level of education and regulation enforcement. The influence of Islamic values advocate by Islam on Muslim's EEB, if any, were found to be only as an afterthought.

THE TYPE OF EEB PRACTICED BY MUSLIMS IN MALAYSIA

According to informant 8, i.e., Mrs. M from NGO 5 (RCO), recycling, which involved proper waste segregation, is one of the types of EEB practiced the most by Muslims in Malaysia compared to other types of EEB such as composting which is the least practiced by the Muslim community, hence, Informant 8 claimed that 51% of organic waste gone to the landfills. Her statement is supported by the findings of Sharifah Norkhadajah and Latifah (2013) who found that municipal waste in Malaysia contain around 48-68% of organic waste.

According to Informant 9, i.e., Mrs. A from NGO (IKR), focus in a campaign often centred on recycling and overlooked the two steps before recycling, i.e., pre-cycling or reducing and reusing. She added that recycling is at the lower level of waste management compared to pre-cycling or reducing and reusing. Informant 5, i.e., Mr. Y from NGO 3 (GRA) agreed with Informant 9 that efforts made are more focused on recycling and almost none on pre-cycling or reducing and reusing. He added that Muslims in Malaysia should emulate Muslims in Indonesia in terms of transforming solid waste into crafts, and organic waste into compost. Johari et al. (2012) explained that composting would be a better option to treat the high percentage of organic waste since the moisture content in organic waste generated in Malaysia is about 55%. Informant 5 added that Muslims should change their views about waste; "it is not waste but it is a new resource" he said. Hence, he added, government approach in addressing the waste disposal issue should be changed accordingly, i.e., not to focus only on

recycling but also on pre-cycling and reusing. As an example, the division called Urban Farming in Department of Agriculture Malaysia has been promoting the use of recyclables in urban farming.

However, Informant 8, was in the opinion that prior to pre-cycling or reducing, reusing and recycling, one should perform 5S, i.e., sort, set in order, sweep, standardise, and sustain (Figure 1). She believed that it is easier for people to do pre-cycling or reducing, reusing and recycling activities once they are used to 5S method. This opinion is supported by Informant 6, i.e., Mr. M from NGO 3 (GRA), and he added that teachers in schools also have to be a role model for their students. He added teaching modules on environmental education must be established for schools and pre-schools. However, Siti Hajar, Tengku Hanidza & Rosta (2012) elaborated that teachers need a special training in order to improve their environmental knowledge and awareness since not all teachers are from environmental background and to better understand the environmental education module.

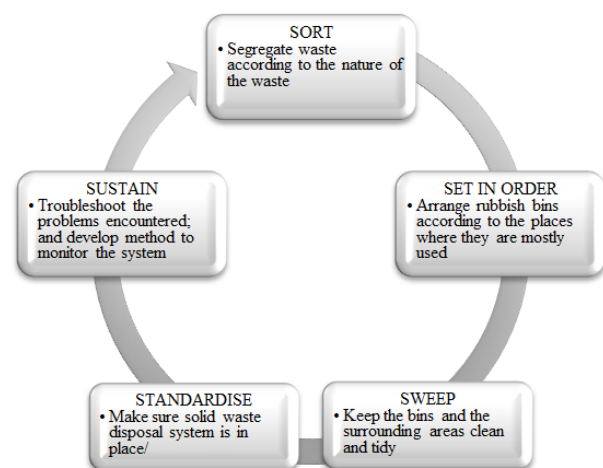


FIGURE 1. Solid Waste Disposal and 5S (Peterson & Smith, 1998)

The opinions of the Informants, i.e., Informant 8 and Informant 6, indicate that 5S should first be a culture amongst Muslims in Malaysia, and only then that pre-cycling or reducing, reusing, recycling and composting activities naturally follows (Figure 2). However, Informant 3, i.e., Miss N from NGO 2 (PEM), was in the opinion that the type of EEB practiced by Muslims in Malaysia is seasonal depending on whether or not there is a campaign such as campaigns on recycling, green

campus, and 3R. The EEB activities performed by the community members are not sustainable and only last within the duration of the campaigns. However, a number of institutions i.e., educational and commercial, has adopted 5S at their workplace

under the institution’s quality management system (QMS). But, how much this practice has continued into their homes and affecting the other types of EEB remains unanswered? Future research should answer this question.

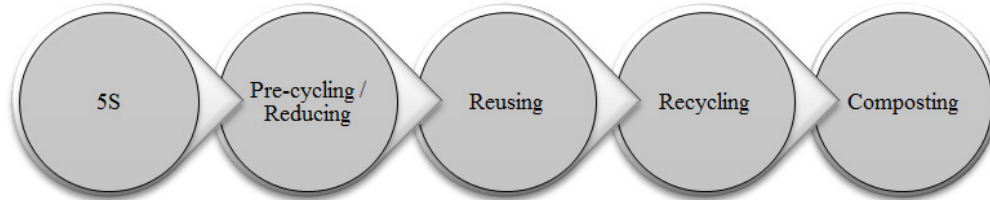


FIGURE 2. Levels of Waste Management According to Informants

THE TRANSFORMATION PROCESS OF EEB EXPERIENCED BY MUSLIMS IN MALAYSIA

According to Informant 8, i.e., Mrs. M from NGO 5 (RCO) and Informant 3, i.e., Miss N from NGO2 (PEM), the rate of transformation process of recycling activity performed by Muslims in Malaysia is still very low although increasing depending on residential areas. Composting rate is at the lowest compared to the other EEB activities. Her statement is supported by Informant 7, i.e., Mr. H from NGO 4 (PER), in that these activities are not widespread and still performed at the lower rate by our community members. He added that urban and sub-urban areas are different in terms of the type of neighbourhood and the community leadership of the areas, i.e., community leaders who are active would mobilise the community towards performing EEB, but many are not. He believed that this is rooted in the lack of actions by those who have knowledge and awareness on the importance of protecting the environment and on the teachings of Islam about environmental protection. Thus, they cannot be a model for the community. His opinion is supported by Zamzul Rizal, Rosta & Lim (2014) who found that ‘the level of knowledge on the environment’ is not a strong determinant for behaviour, meaning that those with a high level of knowledge on the environment may not necessarily translate their knowledge into behaviour. The findings by Nabsiah, Elham & Shyan (2011) too supports the views by Informant 7 in that ‘environmental knowledge related to waste’ although related positively with ‘green purchasing behaviour’ but was not significant, i.e., $p > 0.05$ (Figure 3).

Informant 7 noted that the unfavourable rate of transformation process of EEB amongst Muslims in Malaysia is due to the community adopts a wasteful lifestyle (Figure 3). For instance, open houses in festive seasons and food prepared buffet style during Ramadhan in households and hotels or restaurants often created a lot of waste. On the other hand, findings by Levine and Strube (2012) and Aytekin and Buyukahraz (2013) contradict the FGD’s and Malaysian scholars’ findings, i.e., respondents who are more knowledgeable behaves more environmentally friendly. The opposite findings by the western scholars, i.e., Levine and Strube (2012) and Aytekin and Buyukahraz (2013), compared to the findings by the current study, via FGD, and by the Malaysian scholars illustrate that although both Malaysians and westerners are knowledgeable on the importance of protecting the environment but the tendency of Malaysians not to act on it is more compared to the westerners.

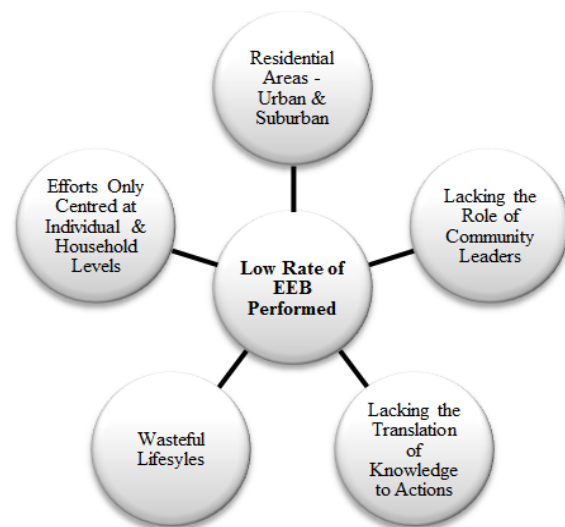


FIGURE 3. Low Rate of EEB Performed and It’s Factors According to Informants

According to Informant 4, i.e., Mr. N from NGO 2 (PEM), the transformation of EEB amongst the Muslim youth in Malaysia is visible although it is not widespread and occurs at a slow rate. He pointed out an example of a youth, Mr. Izham (a UPM Horticulture Graduate), who initiates www.kebunbandar.com – an agriculture consultancy firm specialised in urban gardening. Mr. Izham has assisted an orphanage to gain income from growing chillies and supply them to supermarkets 20-30 kilograms in every two days. Informant 4 added that although at the moment efforts like this are concentrated at the individual and household levels (Figure 3) but the trend in using recyclables (such as wood pallets, drum barrels and glass bottles) amongst Muslim youth in Malaysia is getting popular as vintage style is back in fashion. These recyclables are considered as trendy by the youth for flooring, interior décor, furniture and many more, and gaining many followers. Informant 4 admitted that he is a product of campaigns on recycling during his school days, and in his case recycling behaviour last until this day, and he cannot bring himself to throw rubbish outside a rubbish bin, he would feel very guilty should he does that. He emphasized that recycling needs to be a lifestyle of the youth should we hope to have them embrace EEB (Figure 4).

According to Informant 9, i.e., Mrs. A from NGO 6 (IKR), women hold a lot of purchasing power, i.e., in decision makings of purchasing household items, thus we should focus on educating women to be smart buyers, purchase based on needs and not desire, hence pre-cycled or reduced and reused. She noted that the transformation process of EEB amongst Muslim could be seen by Islamic NGOs such as Islamic Relief who has been performing reusing activities for the past two to three years by opening charity shops selling old reusable clothes, books and other articles donated by the surrounding community members. The money obtained is utilised to aid beneficiaries in need (Figure 4).

Informant 5, i.e., Mr. Y from NGO 3 (GRA) and Informant 2, i.e., Mrs. N from NGO 1 (WAS), were in the opinion that to transform Muslim behaviour towards environmental sustainability fatwa (Islamic legal ruling) institution need to be involved. He noted that, at the moment, there is no single fatwa being issued for environmental protection in Malaysia. He was in the opinion that fatwa institution needs to issue such fatwa to state

the Islamic position on environmental protection, and consequently transform or mobilise the Muslims in Malaysia toward EEB. Informant 9 agreed with Informant 5 and added that a Muslim country like Indonesia has issued several fatwas on how environmental resources are managed including on mining issues. Informant 5 added that to transform Muslim behaviour towards EEB the mosque should be sharia compliance in its design, for instance the mosque should provide tank water like the old days and employ rain water harvesting method in providing water for ablution. He also proposed the mosque to employ green water harvesting in that the ablution water should be harvested for toilet flushing or for watering plants which has been done by one of the mosques in Singapore and received Green Building Index (GBI). This type of mosque is known as eco-mosques.

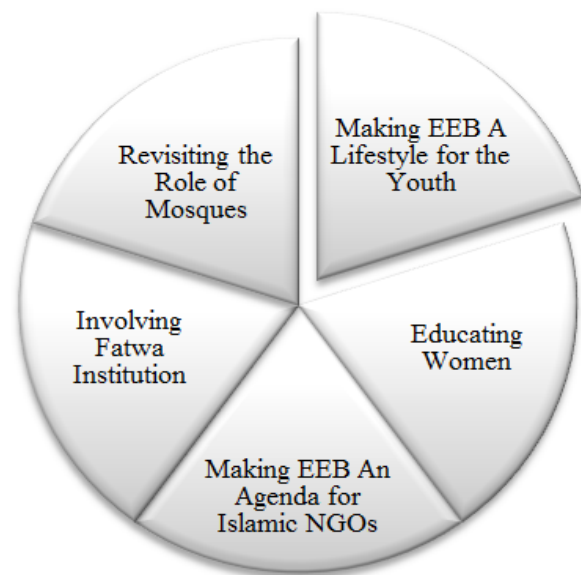


FIGURE 4: Approaches to Accelerate EEB According to Informants

THE MOTIVATIONAL FACTORS IN THE TRANSFORMATION OF EEB OF MUSLIMS IN MALAYSIA

Naturally, Islamic values such as *qana'ah*, *mahabbah*, *ihsan* and *ta'awun* should be the motivational factors for Muslims to perform EEB. However, the findings of the FGDs tell a different story. The informants relate that the transformation of EEB of Muslims in Malaysia is not motivated by the values advocated by Islam but by economic and social factors as well as level of education and regulation enforcement.

Economic Factors Informant 8 noted that the community expects a return in terms of incentives from the recycling programs initiated by NGOs. Informant 5, i.e., Mr. Y from NGO 3 (GRA), agreed with Informant 8 in that the community expects personal gain in performing EEB. The incentives and personal gain precede the sense of personal responsibility – the sense of personal responsibility is still very low amongst the Muslims. Informant 3, i.e., Miss N from NGO 2 (PEM), noted that the most logical explanation on the reason for the community members to question on incentives and personal gain was probably because the environmental benefits from their EEB are not directly visible and are not occurring fast enough for them to see (Figure 5). Informant 8 and Informant 9 observed that most people perform EEB because of economic factors and social obligations. Informant 5 agreed with Informant 9 in that economic factors influenced EEB the strongest. For instance, since the enforcement of Government Service Tax (GST), community garden with edible food, made use of recyclables as pots and composts as fertilisers, has become more popular because people can save on their expenses. However, Informant 4 noted that for youths the gain is too slow and they do not have patience for it.

Social Factors Informants were in the opinion that the social factors such as residential areas and the role of community leaders as discussed in the previous section, i.e., opinions by Informant 8 and Informant 3, were amongst the dominant factors motivating the EEB practiced by Muslims in Malaysia. The role of local authority, resident associations, and neighbourhoods were amongst the factors believed by the informants to contribute to the EEB of Muslims, i.e., the more active the community leaders, for instance in recycling activities, the faster the transformation of EEB process. Additionally, Informant 2, i.e., Mrs. N from NGO 1 (WAS), stated that one of the factors for people to perform EEB activities like pre-cycling is if it is convenient for them. For instance, according to Anvar and Venter (2014), consumers who have a positive attitude towards green products are more likely to adopt green product purchases. Informant 2 added that the biggest hurdle for the community to perform EEB is the attitude that “if others did not do it why should I do it.” However, she believed that social

pressure from friends, neighbours, and co-workers would coerce EEB of Muslims in Malaysia.

However, Informant 7, i.e., Mr. H, argued that not everyone submitted to social pressure. He relates that at one of the flats he visited, one of the flat residents has made use of recyclables as pots for growing all kinds of vegetables, but this does not influence his neighbours to emulate it – somehow his neighbours were not triggered by such environmentally exemplary behaviour. Informant 4 observed that at the moment social media were under utilised as a medium for environmental campaigns by the Muslim youths (Figure 5).

Level of Education According to Informant 8, residents of urban areas are more responsible (in performing EEB) and did not expect incentives, but amongst the residents of People’s Housing Project (PPR) this kind of ethics is rare because of their educational level is lower, and we need more time to educate them to be more responsible. Hence, facilities such as bins for textiles had to be provided for free in these areas. Informant 7, i.e., Mr. H from NGO 4 (PER), agreed that education is one of the factors affecting people’s EEB, and he believed that one should start with educating oneself and one’s family. He believed that in doing so the values inculcated in the children at home will become a culture, and will be practiced until adulthood. Informant 1, i.e., Mrs. Z from NGO 1 (WAS) and Informant 6, i.e., Mr. M from NGO 3 (GRA), agreed with Informant 8 and Informant 7 in that environmental education should start from home (Figure 5).

Informant 9 agreed with Informant 8 that as the society becomes more affluent, the more aware they are about EEB. However, she argued that the urban society generates more solid waste compared to other communities. Informant 2 and Informant 3 also agreed that level of education on the importance of environmental preservation at the young age plays an important role in motivating EEB activities, and the enforcement of law and regulation on solid waste disposal alone is not enough. She believed that the awareness on the importance of environmental preservation at the young age would nurture Muslim’s attitude towards EEB naturally without enforcement because they knew that Allah is All-Seeing. Informant 9 also argued that law and regulation would not solve the waste disposal problems but focus should be on education, and NGOs like hers should have a

green policy and a guideline such as 'low carbon foot print' where Islamic values (such as *qana'ah*, *mahabbah*, *ihsan* and *ta'awun*) are embedded into the policy and guideline and put into practice in conducting events or programs, hence educate the members of NGOs. The views by these informants are supported by Nabsiah, Elham & Shyan (2011) who found through their findings that indicate NGOs have a substantial influence on the behaviour of Malaysian public (Figure 5).

Enforcement Of Law And Regulation

According to Informant 9, i.e., Mrs. A from NGO 6 (IKR), the contractors appointed to collect waste must also play their role to make sure that waste that have been segregated by residents not to be mixed up in the lorry by their workers. Informant 9 believed that the uniformity in law enforcement on solid waste disposal is important. Informant 2: Mrs. N, i.e., NGO 1 (WAS), argued that the enforcement of law and regulation on solid waste disposal alone is not enough. However, Informant 8, i.e., Mrs M, acknowledged that law enforcement on a proper waste disposal, such as the enforcement of household waste segregation on the 1st of September 2015 in a few States throughout Malaysia, was important, and she hoped that people will become more aware of the importance of household waste segregation (Figure 5). Informant 9 believed that the lack of responsibility amongst the Muslims is because of they put the blame on others for the environmental problems, and that

has been the attitude of Malaysians. She further added that the household waste segregation law should be firmly enforced, and household wastes that are not properly segregated should not be collected by the contractors. Informant 5, i.e., Mr. Y from NGO 3 (GRA), agreed with Informant 9 and added that the government should also enforce restaurants to put charges on food left uneaten on customer's plate. These opinions are supported by Elham and Nabsiah (2010) and Zamzul Rizal, Rosta & Lim (2014) in that consumers believe that actions by government and industry are able to solve environmental problems more effectively compared to other parties, and decision makings on domestic and foreign policies influenced the changes in consumer behaviour (Figure 5).

Religious Factors Informant 8, i.e., Mrs M from NGO 5 (RCO), added that sometimes event organizers from the community itself created more waste by using polystyrene, plastics etc., indicating that the values advocated by Islam did not seem to affect, let alone accelerate the EEB transformation although Friday sermon and Imams in the mosques also talk about the environmental protection by quoting many verses in the Quran regarding the environment. She further elaborates that Muslim community members depend on other people to solve their solid waste disposal problem in their own neighbourhoods, hence recycling programs initiated by NGOs were not continued by the community members (Figure 5).

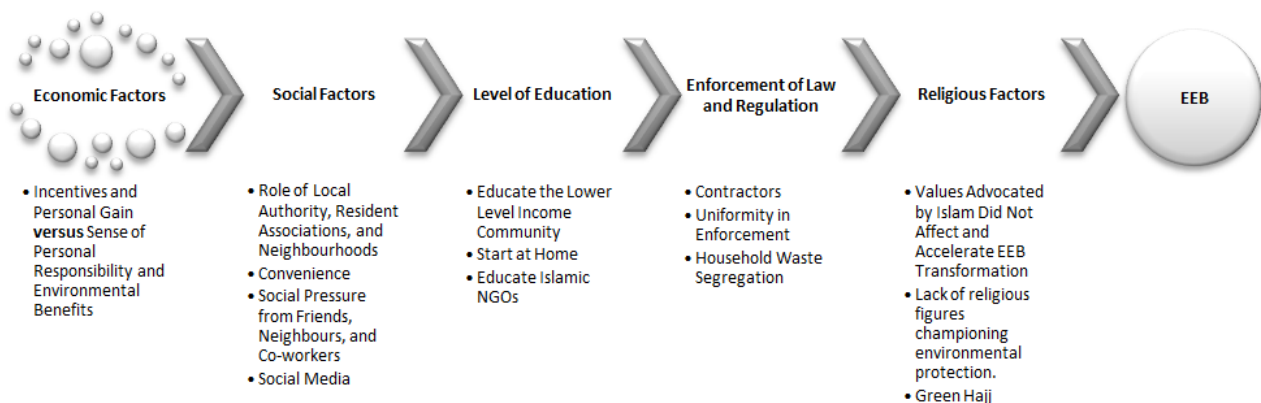


FIGURE 5. Motivational Factors in the Transformation of EEB

Informant 9 observed that EEB was influenced by universal values and cannot be related clearly with Islamic values and Muslims are not leading the transformation of EEB towards environmental sustainability. Informant 5 agreed with Informant 9 in that no religious figures championing

environmental protection in Malaysia (Figure 5). He added that even Tabung Haji should introduce Green Hajj in their Hajj and Umrah packages to promote environmental protection based on Islamic values (Figure 5). However, according to previous researchers, Felix, Asuamah & Darkwa

(2013) discovered that Muslim respondents perform recycling activities because of their own awareness about the importance of recycling.

CONCLUSIONS

The informants agreed that recycling activity is performed by Muslims in Malaysia the most compared to the other types of EEB, and composting activity is the least performed. Additionally, the relationship between 5S method and the management of solid waste disposal should be studied by future researches. The informants were also unified in that the transformation of EEB towards environmental sustainability exists but at a very slow rate due to factors such as residential areas, i.e., urban and suburban hence suburban may not have affluent society, lacking the role of community leaders, lacking the translation of environmental knowledge to action, wasteful lifestyle, and efforts that are only centred at the individual and household levels. It is important to understand what motivate Muslims to perform EEB so that necessary measures would be able to be devised in enhancing such behaviour. However, the transformation of such behaviour of Muslims in Malaysia towards environmental sustainability was found not to be based on the Islamic values but economy, social, level of education and the enforcement of law and regulations. This indicates that Islamic teachings on the environment which stem from the Quranic verses and Sunnah are not the integral part of Muslim's daily routine. Hence, religious institutions such as mosques, Tabung Haji and Religious Departments, religious figures and scholars, and Islamic NGOs need to further enhance their roles in promoting Islamic values regarding environmental protection amongst Muslim in Malaysia, and may one day EEB amongst Muslims in Malaysia are triggered dominantly by Islamic values, hence achieving sustainable EEB amongst Muslims.

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