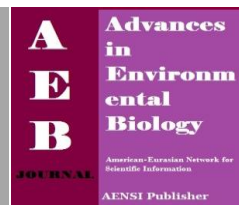




AENSI Journals

Advances in Environmental Biology

ISSN-1995-0756 EISSN-1998-1066

Journal home page: <http://www.aensiweb.com/aeb.html>

Examining the Effect of Attitude Toward Recycling Behaviour Among Undergraduate Business Students

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ARTICLE INFO

Article history:

Received 25 January 2014

Received in revised form

2 June April 2014

Accepted 6 June 2014

Available online 15 June 2014

Key words:

attitude, recycling behavior,
undergraduate business student.

ABSTRACT

The environmental problems that the world is facing today and in the future were a result of the accumulated action of individuals' behavior. Previous researches showed that the quality of the environment depends critically on the level of knowledge, attitudes, values and practices of the people. Although most of the respondents aware the important of environment for the future generation but it was not been translated into practices. Business student viewed as future managers and business executives that will implement policies to protect our environment. However, previous research in western showed that business students lack of ethics, less environmental orientation and only focuses on fiscal or financial goals only. This study is to examine the relationship of attitude toward recycling behavior of undergraduate business students. A total of 73.8% response rate was received with 369 usable surveys. Data for all the study variables were collected through self-administered survey questionnaires. The regression result indicated that attitude is significantly related to recycling behavior. Theoretical, practical and policy implications of the study as well as suggestions for future studies were discussed.

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To Cite This Article: Dr. Abdullah Osman, Mohd Safizal Abdullah, Dr. Arman Hadi Abdul Manaf, Examining the Effect of Attitude Toward Recycling Behaviour Among Undergraduate Business Students. *Adv. Environ. Biol.*, 8(9), 450-454, 2014

INTRODUCTION

Wasteful consumption is the root cause of much of environmental quality degradation through pollution and over-exploitation of resources [20] and this is the result of the accumulative action of individuals (NEETF/Roper Report, 1999). One of major environmental problems faced by most municipalities in Malaysia is solid waste (World Bank, 1992) and the amount of waste generated continues to increase in response to rapid increase in population and accelerated urbanisation and industrialisation processes. These activities are increasingly causing more damage and are due to the human actions which cause irreversible harm on the environmental condition [30]. It has been almost 40 years since the first Earth Day and the birth of the environmental movement, but despite widespread support for the environmental cause and increased awareness of the problems [33], human behaviour has hardly changed even with the information about the consequences of human actions, such as climate change, pollution, or diminishing natural resources [17,41]. Therefore, it requires a fundamental change in human activities, which is a shift from reckless to responsible consumption of resources [17].

Literature Review:

Recycling:

Over the last thirty years, as environmentalists, scientists and policymakers have been closely examining the world's ecological systems, the impossibility of limitless development on a finite earth has been recognized [28]. Environmental issue is now part of the national public conversation and it is expected to become a central issue in the political landscape in Malaysia, it required a longer term of education and awareness campaigns to change public attitude on recycling habits [12]. However a gap seems to exist between people's perception of environment as an issue and their levels of actual engagement and one of the reasons is because recycling has not become a way of life although they are aware of recycling, but their awareness was not translating into practice [27].

In Malaysia, waste generation is estimated at 0.76kg/person/day and is expected to increase every year [1]. The National Waste Minimisation Report in 2006 reported that the total of waste is 8,700 million tonnes in 2004 and considering the projected population and economic growth, the waste amount is expected to reach 15,700

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million tonnes in 2020 which is more than expected on Table 1. Based on the same data, the National Strategic Plan for Solid Waste Management (2005) reported that 17,000 million tonnes of municipal solid wastes were generated in Peninsular Malaysia daily and it is estimated to increase to more than 30,000 million tonnes in the year 2020. The data varies because the Local Authorities manage the solid waste separately but more importantly the amounts of solid waste keep increasing. For the cost of waste management services, it is estimated to be RM 360 million in 2001 or RM 70 per tonne of waste collected.

Table 1: *Estimated Population and Waste in Malaysia.*

Year	Population (million)	Estimated waste (tone/year)
1991	17 567 000	4 488 369
1994	18 917 739	5 048 804
2015	31 773 889	7 772 402
2020	35 949 239	9 092 611

Source: The Ministry of Housing and Local Government (1998).

Based on the above statistics, it is anticipated that the government will spend RM 1.6 billion in 2020 in managing 30,000 million tonnes of waste. To date, the government has conducted various strategies, environmental activities, campaign in dealing this issue. Among the programmes is Recycling Campaign, no plastic bag on every Saturday, and encourage the use of eco-friendly electrical product by offering rebate. However, the wastes continue to increase and this may reflect low level of environmental behaviour, knowledge, concern and awareness among Malaysians [14,34].

Recycling Behaviour:

Recycling has gained increasing attention as a mean of protecting the environment since it offers one of the most sensible solutions both economically and ecologically for managing waste. In Malaysia, various activities have been implemented by the government to increase awareness of the importance of communities' participation in recycling. The electronic media, newspaper including television and radio have been aired as an effort to increase awareness on recycling. However, despite the effort and money spent, the campaign failed to inspire the public due to several reasons including lack support of from the public.

The motivational factors behind recycling attitude and behaviour have been studied in several researches which have sought to isolate specific traits that can be attributed to recycling participations. Bratt [10] emphasized the need to understand the influence of consumers' environmental behaviour and to identify variables that predicted recycling behaviour. The study concluded that the social norm provided no relationship to behaviour. The findings by Oskamp, Harrington, Edward, Sherwood, Okuda & Swanson [29] identified peer pressure as an important predictor or motivational factor of recycling behaviour. This means that when in the presence of others, an individual is inclined to make more socially responsible decisions especially when the peers also are practising it (recycling).

Therefore, responsibility is placed on the government/agencies/institutions to implement effective programmes that consider the needs of individuals and the environment. If people perceive that recycling as an important issue, perhaps because of their knowledge of pro-active decisions taken by the government/agencies/institutions, they will invest their time and effort in a recycling program [19]. Researchers found that high rates of recycling participation appear mainly in areas where communities are better educated and financially secured and where the requirements of the basic needs have been fulfilled [38]. However, most of the people still do not realise that improving environmental quality is not only the responsibility of the government but each of individuals have an equal role.

Attitude:

Attitude served to guide people's behaviour [7] and the social psychology literature on behavioural research has established attitudes as important predictors of behaviour, behavioural intention and explanatory factors of individual behaviour. Arbuthnot [5] stated that "changing the attitude of world citizens is a necessary prerequisite to behaviour change". In fact, the scientific knowledge of the consequences of environmental degradation, and public information campaigns can potentially influence behaviour [5]. Eagly and Chaiken [13] found that there is a clear relationship between an individual's general behaviour rather than specific attitude and his or her intended behaviour. Therefore, it indicates that individual's general attitude is a good predictor to engage in a behaviour that is relevant to the attitude.

However, some research showed that the relationship between attitude and behaviour is inconsistent. Balderjahan [8] conducted a causal model to predict environmentally responsible purchase behaviour; the result showed that the relationship between attitude towards pollution and purchase behaviour is not significant. A broader orientation like New Ecological Paradigm (NEP) also showed weaker direct correspondence between attitude and environmental behaviour [32,39]. Several studies by Stern [35] and Stern, Dietz, Kalof and

Guangnano, [18] argued that there is a weak correspondence between attitude and environmental behaviour because there is a causal chain leading from general values to specific behaviours.

Analysis study by Hines, Hungerford & Tomera [21] on 51 environmental studies found that attitude – behaviour correlation was lower when the attitude was operationalized as a general attitude compared to specific attitude. A strong correlation only exists when attitudinal measure and the behavioural measure are in specificity. The low correlation between attitude and behaviour is because of the omission of intention, and effects of attitude on behaviour should be mediated by intention [16]. The reason why attitude-behaviour correlation decreases is because of beliefs about attitude are basically cognitive, whereas attitude is normally affectively (individual feeling) driven [26]. Generally, research found a weak or modest relationship of attitude and behaviour correspondence, and Thapa [37] identified three factors that might contribute to weak predictability of attitude and behaviour relationship; 1) attitude specificity (specific versus general measures), 2) attitude measurement, and 3) effect of external factors.

Research Methodology:

This research adopted a non-probability sampling using the convenience sampling since the information collected from the samples are conveniently available. Convenience sampling is the best way of collecting information quickly and efficiently [11]. The samples of undergraduate business students from three (3) public universities (Universiti Malaya, Universiti Putra Malaysia and Universiti Utara Malaysia) were selected. The sample consisted of 370 undergraduate business students registered in three public universities. The majority of the sample were female ($n = 276$; 74.6 percent) compared to male. ($n = 94$; 25.4 percent). This distribution is the true reflection of registered students in most public institutions of higher learning in Malaysia with the majority of females pursuing tertiary studies compare to male

Findings:

Based on this finding, it showed that the attitude towards recycling influenced recycling behaviour. This implicates that once the respondents possessed a positive attitude towards recycling, the possibility to recycle will be higher. Therefore, their attitudes towards recycling depend on the level of knowledge and information he/ she has on the importance and benefit of recycling. The standard deviation for attitude toward recycling behaviour is 1.00 and the mean score is 5.68 which are reflected that attitude influenced recycling behaviour. The correlation results is .423 and conforms that there is a significant association between attitudes and recycling. The result demonstrated a multi-collinearity does not exist in this study because the correlation coefficient (r) is less than .80 [9]. The result of regression analysis also showed that attitude significantly related to recycling behaviour ($\beta = .251$, $p < .01$). This finding is consistent with the previous finding on the significant relationship between attitude and actual behaviour. [3,6,15,17,18,22,25,29]

Discussion:

This research is to examine the relationship between attitude towards recycling and recycling behaviour. Finding showed that attitude significantly influence recycling behaviour. This finding is consistent with the previous finding on the significant relationship between attitude and actual behaviour. [2,5,15,17,18,22,25,29]. The result implies that undergraduate business students who have a better attitude towards recycling would likely perform recycling activities. However, presently in Malaysia the attitude of the Malaysian community on recycling is still low. This is in line with the finding by Aini *et al.*, [2] that the environmental awareness among respondents is still low although various strategies had been implemented to educate and increase community environmental awareness in Malaysia. Therefore, it is interesting to note that in this study attitude is related to recycling behaviour but it is not put into practice. It is believed that the main reason is the lack of community participation and support because recycling activities are voluntary, individual willing to change and care for the environment for future generations. If each individual recycles and a monetary benefit is awarded, then it is expected a majority of Malaysians would recycle. This is in tandem with findings conducted in Malaysia by Aini *et al.*, [2] that the respondent's behaviour on the environment is based on direct financial benefits they gain. Furthermore, people will only comply when pro-environmental behaviour aligns with self-interest [4].

Conclusion:

It is suggested that for future research, a similar study could be conducted which uses different research methodologies. The first idea serves primarily to uncover the most appropriate and most reliable technique for asking recycling questions, the second suggestion aims at discovering new insights into the topic. Since survey technique delivers pre-fabricated options to a question, they give very little room for a respondent to elaborate on an issue. The use of in-depth interviews or focus groups may discover underlying values or motivations as to why people do or do not recycle and may lead to greater understanding.

It is suggested that future research should examine the recycling behaviour of non-business students and also to include the private higher learning institutions. This would then be able to conform to the previous

studies in western countries that found non-business students are more pro-environmental than business students. Future research might also explore the cultural differences within the Malaysian community. The cultural diversity triggers a possibility to conduct a research on people from different background for example; the Malays, Chinese, Indians, Dayak, Ibans, Kadazans and others.

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