

Recycling behavior among university students



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The purpose of our study is to find the factors affecting multimedia students to recycle. We have four independent variables which are health consciousness, health consciousness, rewards convenience, and one dependent variable which is students recycling behavior. What appears unavailable is documentation on critical issues involved and how to address them. This paper, therefore, examines the attitudes portrayed by students towards recycling. We used survey questionnaire to collect data from 100 respondents. The government and the community can use our findings to find ways to make people recycling more and save energy.

CHAPTER 1

INTRODUCTION

Chapter Overview

This chapter clearly provides much insight into the importance of the current research. It begins with a quick study on the background of the research. It includes the question in detail and how to get to the answer or solution. There will be an interpretation of what this study is all about and also the scope of the study. This chapter will finally conclude with a brief overview of the research.

Background of the research

Recycling is a much needed thing in order to keep this planet from turning into a trash dump. A lot of people feel that recycling is a waste of time and insignificant, but it takes less than a minute to throw a paper in a recycle bin just like it take a minute to open a wrap and eat a sweet. But they should know that whatever recycling they do can make a difference for instance one aluminum can saves enough energy to run a T. V for 3 hours, a single glass
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jar saves enough energy to light a light bulb for 4 hours. So for everything you recycle it does save energy. In Malaysia tones of waste are produced, 19000, and all them end up in landfills and there are 230 landfills in Malaysia. And 80 percent of this landfills will be filled in two years, which is really bad because if the landfills reach that capacity in only two years, what capacity would they be in another two years to come?(David Gutierrez, December 2010)

What people believe is that not many things can be recycled; maybe years ago it could be believed to be true but not today. Nowadays anything can be recycled; paper can be bound into newspapers, manuals, school books and paper boxes, metals like aluminum, sauce cans and tins, plastics, glass, beverage cartons etc. And there are companies in Malaysia that encourage recycling and they provide recycling machines SMIC (M) Sdn Bhd which provide recycling services of waste, Nikkhsin Sdn. Bhd. Which recycles Aluminum Claddings – Automotive Engines : Export – Automotive Parts & Accessories : Export – Disposal Services – Garbage Disposal Service, Lian Hong Trading, Kent Soon Recycle Centre Sdn. Bhd, Ganapathy Metals, GMS Purna Impex and Edar Bagus. Mentioned above are the recycle centers that could be found in Malaysia.

Recycling is a lesson that one should be taught in a young age, but I shows that most people know about recycling when they are old enough to understand and able to make their decisions. MMU would find ways in which to get through to the students and how the students respond to the information is up to them, that's what our research would be mostly looking, how Multimedia students respond to the education given about recycling. Recycling does not cost anything, it takes only a little extra time, and one can make an amazing difference to the world. In many regions recycling boxes are not provided which people can use to collect recyclable materials for collection at the same time as their domestic waste.

1. 3 Objective

The research question and also the objectives are established in order to provide a sense of direction on the topic that is being investigated. The research question of this study is to find out:

What are the factors affecting MMU students to recycle?

The main objective or the reason why we are doing this research is for us to examine the

To determine problems faced by students in recycling?

To identify factors affecting students to recycle

1. 4 Scope of study

In accordance of the topic we are studying which is recycling; since this topic is wide we have to narrow it down to the students studying in Multimedia University. The main focus of this study is to find out the effects of recycling, as in the positive of recycling and also the negative of recycling among the students.

This study is limited to students only. The geographic scope is limited to the country of Malaysia. These limits nevertheless offer a reasonable base and rationale for the scope of study. The data was collected through a questionnaire survey which was completed by students with the intention of measuring the effects of recycling among students in MMU.

Organization Research

This part is going to make more factual information by using the following chapter that are given by the textbook and also an order from our perspective lecturer/tutor.

Chapter 1: The research is lead by studying “ the effects of.....” which are related to the research objectives and justifications. And it may lead us to a conclusion why recycling is important to our environment and also to our health.

Chapter 2: This chapter is going to present a review of the definition of recycling and ways to increase education relating to reuse reduce and recycle, basically programs adopted by MMU to encourage its students to recycle.

Chapter 3: This chapter will present the research methodology that was employed in the research, it clarifies how we get the data, and analysis this raw data to organize it into a useful and easy way to make others fully understand it.

Chapter 4: The major findings and insights that are emphasized by us in this research which are to discover the basic reasons why some students recycle while others do not recycle at all, and the effectiveness of the programs that were offered by the university in encouraging recycling.

Chapter 5: This is the final chapter, conclusion from the research findings and discussions. And also it highlights the limitations associated with the research and a proper recommendation for future research in the specific

area, because nowadays everything can be recycled therefore there won't be any excuse students will give for not recycling and many programs provided to learn about recycle and how to do it.

1. 6 Justification for Research

Looking at the fact that not so many people do not recycle, and that's because the majority do not know anything about recycling , it could that some of them do not know the importance of recycling and finally some will want to recycle and because of lack of resources that will be hindered. That is why we do this study to find the answer to all those questions and to put the 3R perspective . into use.

This 3 concept are the main purpose of the recycling which is 3R. From this perspective, we intend to study the recycling behavior among the MMU students. Nowadays, almost all universities is applying environmental friendly concept. Due to this concept, we are looking deeply into these experiences, to learn from the MMU undergraduates and start revealing how the students can inform us to move into the realm of wide-spread institutional transformation. The reason we agreed together to have recycling as our project is mainly because nowadays almost all universities in the world had organize several campaigns about the recycling.

MMU also joined in organizing campaign relating to environmental friendly. For example, MMU Convocation 2010's ConvoFest's theme is green. Hence, our objective is to know how actively MMU undergraduates feel towards environmental-friendly concept. Apart from it, we will use survey method to gather information that needed by collecting raw data from MMU

undergraduates. For the importance, recycling no doubt is really vital nowadays. This is because this will affect the industry future and the environment. At current, we are mainly focused on the undergraduates in the university. If we found out that undergraduates are actively involved in this field, shows that in future there would be more people involved in recycling. This will contribute to environmental-friendly.

Our study will benefit a lot of people mostly the government and the community in the vicinity will be benefited. The government will be benefited in terms of the fact that now the environment will be less polluted thus more industries will be built, The more materials recycled, the less energy is expended to create new materials, the more resources conserved and the more trash and pollutants are kept from entering the environment. Recycling helps to keep water and air clean, saves the wildlife and keeps trash off the streets. Recycling also helps to control Municipal Services Fees by reducing the total amount of trash to be taken to landfills. And the community will be benefited in terms of clean air to breath and less trash in their streets, good health will also be a benefit to the community because the trash now is recycled rather than being thrown all over.

CHAPTER 2

LITERATURE REVIEW

2. 1 definition of recycling

is processing used materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage, reduce air pollution (from incineration) and water

pollution by reducing the need for “conventional” waste disposal, and lower greenhouse gas emissions as compared to virgin production. Or plainly it is returning an item back to its original condition so that it can be reused.

Recycling behavior includes environmental consciousness, health consciousness, rewards and convenience. Some of these attributes can be measured objectively while others, in our case, are measured according to student’s perception. Recycling is so important to the welfare of our community. Majority students already know that recycling helps conserve natural resources, and also know that recycling saves space in our landfills. On the other hand, few know that recycling waste products conserves water, energy, trees, and helps reduce pollution in our drinking water and air. But for some products its crucial to conserve them example conserving energy by way of recycling is a crucial environmental benefit because it takes far less energy to make new products and put them into working order using recycled waste than it does to make them from entirely new material.

In dealing with students more reinforcement should be taken into consideration, like ways to encourage them to recycle, and research shows that rewards work for students. Nevertheless, it seems hard to match the evidence that the reward reinforcement is one of the most effective promotion techniques (Geller et al., 1975; Witmer and Geller, 1976; Luyben and Bailey, 1979; Hamad et al., 1980; Vining and Ebreo, 1990; Needleman and Geller, 1992).

2. 2 Definition of students recycling behavior

From today’s perspective, modern recycling behavior would appear to have commenced in the seventies, when households were exhorted to save paper,

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cardboard, metals and other materials in an attempt to combat the energy crisis (Ackerman, 1997). The recycling drive involved not only a general urge to take action and reduce wastefulness, but also more specific reactions to the spread of litter, and to the threat of pollution from landfills. Hence, it seemed logical to assume that recycling was not only a high involvement form of behavior but also that there would be many differences between recyclers and non-recyclers (Lansana, 1992). The recycling behavior of students differs with every student, some recycling because they find it important in their lives and some of them do not recycle because they see no need to recycle.

Recycling behavior is considered as a high commitment since it is considered an environmental conduct and in addition the predominant environmental literature emphasizes the idea that individuals who are reluctant to recycle, or who neither recognize the importance of, nor express interest in, recycling waste are the same individuals who are most interested in extrinsic stimuli such as prizes, gifts and financial rewards (Vining and Ebreo, 1990; Oskamp et al., 1991; Dahle and Neumayer, 2001) the study explains that some students recycling behavior is encouraged by rewards or extrinsic value rather than recycling because it is the right thing to do. Study shows that students who behave (focus on external reinforcement) that way have less information about recycling. To be more specific, the response to the reward technique is explained by pointing out that consumers have not assimilated good enough knowledge and evaluations, such as ecological conscience (Bohlen et al., 1993); beliefs about recycling (Scholder, 1994); ecological concern (Dunlap and Van Liere; 1984; Bohlen et al., 1993); a favorable

attitude toward recycling (Biswas et al., 2000) and recycling involvement (McGuinness et al., 1977; Black et al., 1985).

2. 3 factors affecting students to recycle

There are lots of factors that affect students to recycle; some factors can be controlled while others cannot be controlled, these factors include collection method (segregated or mixed materials) , space for collection and storage of reusable's and recyclables , geographical location, particularly in relation to markets for reprocessing materials , size of institution and volume of recyclable material , other important factors include local authority facilities, charging structure and support only to name a few. In fact, consumers' learning requirements regarding recycling are easily satisfied since beliefs about recycling have already been acquired by the average citizen and the waste-collection system has reached a high standard of convenience which reduces its perceived cost (Ackerman, 1997).

Study shows that educating students about recycling could help also, the factors given above could all exist but when students do not know anything about recycling then everything becomes vague. Education on recycling in fact is one of the major factors affecting recycling, the knowledge gained by students through that education can help them choose whether they want to recycle or not. The question is whether or not recycling continues to be of the high involvement category, and if it is not, whether to assume that responders and no responders to the reward technique display significant differences in terms of knowledge and evaluations. To understand this seemingly paradoxical framework it must be appreciated that nowadays recycling is often not high involvement behavior, since recycling has long

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since become part of contemporary culture and is no longer regarded as a novelty (Rogers, 1995).

2. 4 Relationship between recycling and students behavior

Nevertheless, according to recent research, the high involvement decisions model is not the only one which is valid for explaining both ecological (Hartmann et al., 2002) and recycling behaviors (Ratneshwar et al., 2003) and it therefore seems possible to represent recycling behaviors by using other hierarchies of effect (Diaz and Beerli, 2004). Such approaches are based on the fact that (1) much previous evidence points to the existence of associations or correlations, and not of cause and effect relationships, in recycling adoption models (Schlegelmilch et al., 1996) and (2) no works have been found that contradict the protocol of classic effects.

Basically the above writers explain that there is a difference between recycling and the behavior of students or their attitude. Some students or in this case majority feel there is an importance in recycling and they want to learn more about recycling because they will like to recycling in the future. But because of less education given about it they have no choice but not to recycle. Another group is those students with negative attitude; they feel there is no need to recycle because it is none of their business to recycle but some of them need a nudge or a push for them to recycle. And to push students to recycle is through extrinsic benefits or rewards, they need that for them to change their attitude towards recycling, and research shows that rewards are a good way to make students recycle and they respond to that more than anything else involved.

According to Petty and Cacioppo's elaboration likelihood model, the individual is not motivated to think about recycling but about the promised reward. Therefore, responders engage in recycling via the so called peripheral route and thus show little interest in recycling itself (Young, 1984; Katzev and Pardini, 1987; Vining and Ebreo, 1989). The predominant environmental literature emphasizes the idea that individuals who are reluctant to recycle, or who neither recognize the importance of, nor express interest in, recycling waste are the same individuals who are most interested in extrinsic stimuli such as prizes, gifts and financial rewards (Vining and Ebreo, 1990; Oskamp et al., 1991; Dahle and Neumayer, 2001).

CHAPTER 3

RESEARCH METHODOLOGY

3. 1 Introduction

This chapter explains about the design and research method. Firstly, research question has been identifying by the review, hypotheses and theoretical framework. The dependent variable of the research is recycle behavior while the independent variables are; environmental consciousness, health consciousness, rewards/ incentives, nearness or convenience. Second part of this chapter, it will discuss the hypothesis development.

3. 2 Research Framework

Environmental consciousness

STUDENTS RECYCLING

BEHAVIOUR

Nearness/convenience

Rewards/incentives

Health consciousness

Based on the theoretical framework, it have total of 4 independent variables which will be analyzed towards one dependent variable in this study. The dependent variable which is, Recycle Behavior would be affected in a positive or negative manner based on the independent variables influences.

3. 3 Hypothesis Development

Hypothesis 1:

H0= Environmental Consciousness does not influence Recycle Behavior.

H1= Environmental influences Recycle Behavior.

Hypothesis 2:

H0= Health Consciousness does not influence Recycle Behavior.

H1= Health Consciousness influences Recycle Behavior.

Hypothesis 3:

H0= Rewards/ Incentives does not influence Recycle Behavior.

H1= Rewards/ Incentives influences Recycle Behavior.

Hypothesis 4:

H0= Nearness or Convenience does not influence Recycle Behavior.

H1= Nearness or Convenience influences Recycle Behavior.

Dependent Variable

Dependent Variable is a variable that can be change by the Independent variables or the variable that is being measured in an experiment.

Recycle Behavior is our study dependent variable. A habit had by the people to process used material into new products to prevent waste of potentially useful material. It saves a lot of sources. (Environmental Assistance Office (EAO), Infrastructure, Design, Environment, and Sustainability (IDEAS) Center, UNC Charlotte, 2009).

Independent Variable

Independent and dependent variables are related to one another. The Independent part is what you, the experimenter, changes or enacts in order to do your experiment. The dependent variable is what changes when the independent variable changes. The dependent variable depends on the outcome of the independent variable.

From the study we have 4 Independent variable; Environmental Consciousness, Health Consciousness, Rewards/ Incentives, and Nearness or Convenience.

Environmental Consciousness: mean that there is no better measure of environmental responsibility than direct observation of young people, over a significant period where people are minimizing their environmental impact, reducing consumption and reusing and recycling materials. (Bill Hampel and Roger Holdsworth, 1996).

H1= Environmental Consciousness influences Recycle Behavior.

Health Consciousness: recycle behavior relationship for health consciousnesses is for good health. (Debasmita Chanda, 2006) Example: To have a better life environmental with less pollution problem.

H1= Health Consciousness influences Recycle Behavior.

Rewards/ Incentives: the expectation of reward when you to do the recycle. Example: Jenny take the 1kg of the tin to recycle, there have a return of RM 3 for the 1kg tin as the reward.

H1= Rewards/ Incentives influences Recycle Behavior.

Nearness or Convenience: Convenience was determining when students will recycle or not. (Environmental Assistance Office (EAO), Infrastructure, Design, Environment, and Sustainability (IDEAS) Center, UNC Charlotte, 2009)

H1= Nearness or Convenience influences Recycle Behavior

3. 4 Data Sources

We are collecting our study data sources through the internet.

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Variable Name

Description

Sources

Recycle Behavior

A habit had by the people to process used material into new products to prevent waste of potentially useful material

Environmental Assistance Office (EAO), Infrastructure, Design, Environment, and Sustainability (IDEAS) Center, UNC Charlotte, 2009

Environmental Consciousness

there is no better measure of environmental responsibility than direct observation of young people, over a significant period who are minimizing their environmental impact, reducing consumption and reusing and recycling materials

Bill Hampel and Roger Holdsworth, 1996

Health Consciousness

recycle behavior relationship between the health consciousness for good health

Debasmita Chanda, 2006

Rewards/ Incentives

the expectation of reward when you to do the recycle

Nearness or Convenience

Convenience was determining when students will recycle or not

Environmental Assistance Office (EAO), Infrastructure, Design, Environment, and Sustainability (IDEAS) Center, UNC Charlotte, 2009

3.5 Data Collection Method

Data collection is simply how information is gathered. There are various methods of data collection such as personal interviewing, telephone, mail and the Internet. There are several data collection methods, each with its advantages and disadvantages. Data was gathered through questionnaires.

The items for the questionnaire have formulated according to the questionnaire design. A questionnaire is a set of the question which to record the respond of the answers. According to this research, we decide to use questionnaires that we personally administer to suit the topic of our study. Through the knowledge, we know that questionnaires are popular means of collecting data, but difficult to design and often require many rewrites before an acceptable questionnaire is produced.

A questionnaire is composed of questions or statements. A way to learn how to write questionnaires is to look at other samples of questionnaires.

Questionnaires may be designed to gather either qualitative or quantitative data. Quantitative questions are more exact than qualitative. Any question must be carefully crafted, but in particular questions that assess a qualitative measure must be phrased to avoid ambiguity. Qualitative questions may also require more thought on the part of the participant and may cause them to become bored with the questionnaire sooner. In general,
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we can say that questionnaires can measure both qualitative and quantitative data well, but that qualitative questions require more care in design, administration, and interpretation (Schmidt, H. J., 2000)

Our study is finding out the recycle behavior among the student, therefore we have formulated the questions to the student in MMU.

3. 6 Questionnaire Design

Our questionnaire has been distributed to the student in MMU. The questionnaire has been divided into three parts: Part A, B, and C. As Part A of the questionnaire is focus on the personal detail of the student, however the second part is look on the student frequency of recycle. Part C is the independent variables of the study.

3. 7 Sampling Method

Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population. From the study, we decide to use convenient sample as our sampling method. A convenience sample results when the more convenient elementary units are chosen from a population for observation.

3. 8 Sample Size

We are selecting our study sample size is 100 of MMU student. We felt it was the best and was suitable for the population this is so because in research it has been stated that a sample size between the range larger than 30 and less than 500 is appropriate. The smaller the group size, the harder it is to be certain that the normal curve assumptions have not been violated (Todman <https://assignbuster.com/recycling-behavior-among-university-students/>

and Dugard, 2001). Sample size is one of the four inter-related features of a study design that can influence the detection of significant differences, relationships or interactions (Peers, 1996).

3. 9 Unit of Analysis

In our study we are interested and gather the information of MMU students. In case of our research we will be focusing to collect the data from the MMU student. Unit of analysis of our research is an individual.

3. 10 Pilot study

This study is conducted among 4 random students to find out whether it is easily understood by the respondents. The study also knows the recycle behaviour of the respondent. It helps the young generation to create a better future and save the resource to re-use. This study was very successful, because all students understand the questionnaire without confusing when the respondent questioning. The only issue through the study is some of the questions are quite like similar, but meanings of the questions are difference.

3. 11 Data analysis Techniques

Once the questionnaire is completed and gathered, the data is done according to the dissertation. We are using SPSS software through the computer to do the data analysis. Regression and correlation analysis was applied to analyze data. The data after the analysis we show it in the table in the next chapter of this.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION

4. 1 Introduction

We have distributed 100 copies of questionnaires for our survey. Statistical Package for Social Sciences (SPSS) was used to analyze the data.

Frequencies for each demographic variable were computed. We are using Cronbach's Alpha to assess our reliability (Cronbach, 1951; Hayes, 1998).

Higher Alpha coefficients indicate higher scale reliability (Santos, 1999). In addition, Nunnally (1978) suggests that scales with 0. 70 Alpha coefficients and above are considered acceptable.

Demographic Profile of Respondents

Respondents for this study are typically undergraduates of Multimedia University (MMU). As described in Table 4. 1. 1, majority of the respondents are male (54%), their age is between 21-30 years old (65%). Apart from that, they are taking undergraduate program in MMU (94%), and their income is below RM1000 (59%). Most of them are Malaysian (85%). Besides the race of Chinese (31%), from the Faculty of Business and Laws (79%), are single (99%).

From the Table 4. 1. 2, generally, Majority of the MMU student are recycling (80%). Most of them recycles every month (45%), recycles for years (50%).

In Addition, mainly for them to recycle is to save the environment (90%).

Most of them recycle plastics (72. 5%). For MMU students, they often (29%) recycle in campus. For those who are not recycling, (85%) of them will start to recycle.

TABLE 4. 1. 1 GENERAL OVERVIEW OF THE SAMPLES DEMOGRAPHIC PROFILE**Variable****Frequency****Percent (%)**

Gender

Male

54

54. 0

Female

46

46. 0

Age

Below 21 years old

35

35. 0

21-30 years old

65

65. 0

Education

SPM / STPM / equivalent

5

5.0

Diploma / Degree / equivalent

94

94.0

Master / Doctorate / equivalent

1

1.0

Income

RM1000 and below

59

59.0

RM1001-RM2000

30

30.0

RM2001-RM3000

9

9.0

RM3001 and above

2

2.0

Nationality

Malaysian

85

85.0

Non-Malaysian

15

15.0

Ethnicity

Malay

37

37.0

Chinese

31

31.0

Indian

19

19.0

Others

13

13.0

Marital

Single

99

99.0

Married

1

1.0

Faculty

FOSEE

1

1. 0

FBL

79

79. 0

FIST

10

10. 0

FET

8

8. 0

Others

2

2. 0

Table 4. 1. 2 PORTRAYS AN OVERVIEW OF THE SAMPLES DEMOGRAPHIC PROFILE**Variables****Frequency****Percent (%)**

Do you recycle?

Yes

80

80

No

20

20

If yes, How often do you recycle?

Every day

9

11. 3

Every week

23

28. 8

Every month

36

45

Every year

12

15

How long have you been recycling?

Days

3

3.8

Weeks

7

8.8

Months

30

37.5

Years

40

50

Why do you recycle?

To save the environment

72

90

For fun

4

5

For tradition (my family does it)

4

5

Others

0

0

What do you recycle?

Plastic

58

72.5

Paper

5

6.3

Cardboard

8

10

Cans

6

7.5

Bottles

3

3.8

Others

0

0

If you don't recycle, will you start?

Yes

17

85

No

3

15

If you ever lived on campus before(i. e. dorms), how often did you recycle when you live campus?

Never

12

12

Rarely

19

19

Often

29

29

Always

23

23

I have never lived on campus or recycling was not available

17

17

4. 2 profile of respondents

Figure 4. 2. 1 shows the gender of respondents, and according to the pie chart the most respondents are males with 54% secondly is females with 46%. Reason being that the study way conducted inside the university and Multimedia University is dominated by males than females.

Figure 4. 2. 2 shows the age of respondents, and according to the pie chart the most respondents are those who age from 21-30 . The second largest age of respondents are those whose age is below 21 . Basically all of the respondents age from 21-30 the reason being that all of the respondents are students as the research was conduted in MMU.

Figure 4. 2. 3 illustrates the Educational level of the respondents; most of the respondents of the questionnaire survey are doing degree the reason being most of the students in Multimedia University are from Secondary school and they are not at that satge of doing masters or doctorate yet. is shown by the pie chart just a few number of respondents are doing SPM or they already did their them.

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