THE INTENTION DETERMINANTS OF RECYCLING BEHAVIOR AMONG MALAYSIANS

By

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ABSTRAK

Penjanaan sisa-sisa buangan di Bumi semakin meningkat akibat pertumbuhan pesat penduduk, kekayaan kewangan pengguna bertambah baik dan pembangunan perindustrian berkembang pesat. Menurut data dari statistik, penduduk dunia telah mencapai hampir enam bilion pada tahun 2001 dan 46% daripada penduduk dunia ini menetap di kawasan bandar (HMGN dan bermuram, 2003). Salah satu penyelesaian untuk mengurangkan atau menghadkan kesan negatif daripada sisa pepejal terhadap alam sekitar adalah dengan mengurangkan jumlah sisa buangan yang dijana dengan mengamalkan aktiviti kitar semula. Walau bagaimanapun, walaupun peningkatan kesedaran di kalangan pengguna semakin meningkat, namum kadar penyertaan dalam aktiviti alam sekitar di kalangan Malaysia masih rendah terutamanya dalam aktiviti kitar semula. Jesteru itu, kajian ini dijalankan dengan tujuan menyiasat niat aktivit kitar semula di kalangan penghuni di Malaysia. Selain itu, kajian ini juga mengkaji kewujudan pengalaman sebagai satu cirri ke arah hubungan antara factor-faktor dan niat kitar semula di kalangan penghuni di Malaysia. Kesemua factor termasuk kebimbangan alam sekitar, norma-norma sosial, kepercayaan kitar semual, mudah dan pengetahuan mempengaruhi niat kitar semula di kalangan penghuni di Malaysia. Walau bagaimanapun, pengalaman kitar semula mempunyai kesan yang sederhana terhadap hubungan antara norma-norma sosial dan niat kitar semula di kalangan penghuni di Malaysia

ABSTRACT

Waste generation in the Earth is increasing as consequences of the rapid growth in population, consumers' financial wealth improved as well as the industrial development. According to the statistics data, world population has been reached almost six billion in the year of 2001 and 46% of this world population is residing in the urban areas (HMGN and MoPE, 2003). One of the solutions to reduce or limit the negative impact of solid waste on the environment is to reduce the total amount of the waste generated coming from rising consumption, for instance, recycled or reused. However, the participation rate in green activities among Malaysian remain very low especially in recycling activity although the increasing awareness among consumer about our environment degradation. At such, this study was carried out in order to investigate the determinants of the intention of recycling behavior among householders in Malaysia. Moreover, this study also examines the existence of the moderating effect of prior experience toward the relationship between the determinants and the intention of recycling behavior among householders in Malaysia. All of the factors which included in this study are general environmental concern, perceived social norms, recycling beliefs, convenient and knowledge significantly influence the intention of recycling behavioral among householders in Malaysia. However, only prior experience do have the moderate effect toward the relationship between perceived social norms and intention of recycling behavioral among householders in Malaysia.

CHAPTER 1

INTRODUCTION

1.1 Introduction of the Chapter

This chapter which consists of six sections will give an introduction to this study. For the first three sections, it will explain the background of the study, the grounds for concern and the importance of the problem. While for the subsequent sections, it will describe the implications of the research, the objective of the research and lastly the research questions will be included in this chapter as well.

1.2 Background of the study

Most of the time, recycling is always connected with the contribution for the betterment to the society thru protecting open land and lessening pollution. Recycling which is a part of wastes management activity has become a crucial and the most concern issue in either developed or developing country in order to maintain the quality of the Earth's environment and achieve sustainable development. In fact, this international problem has been recognized and received a clear policy support from the world leaders during the 'Earth Summit' in Rio de Janeiro in 1992, whereby the blueprint for a more sustainable future was launched in the form of Agenda 21 (UNCED, 1992).

The main reason of the increasing of waste generation in the Earth is because of the increasing in the products that are both consumed and, more importantly, disposed of after use as a consequence of rapid growth in population as well as the improved financial wealth. Statistics data had indicated that the world population had been reached almost six billion in the year of

2001 and 46% of this world population were residing in the urban areas (HMGN and MoPE, 2003).

Pertain to the increasing of waste generation; one of the ways to reduce or limit the negative impact of solid waste on the environment is to reduce the amount of the waste generated coming from rising consumption. Generally waste can be either recycled or reused. If the waste cannot be recycled or reused, it must be incinerated together with energy recovery and only as a last resort, should landfills be utilized (Messineo & Panno, 2008).

However, improper solid waste management in the cities would impair human health and would cause economic, environmental as well as the biological losses (Moghadam et al, 2009). Moreover, the fluctuation of the characteristics of the solid waste as a result of rapid urbanization and industrialization has led to the frequent changes in the solid waste management system in order to match with the quality, quantity as well as the composition of the solid waste. This problem has complicated the solid waste management system already faced by developing countries and included low collection coverage, irregular collection services, crude open dumping and burning without air and water pollution control, the breeding of files and vermin (Ogawa, 2000). Therefore, solid waste management will always be a major challenge in the urban areas throughout the world, specifically in rapidly growing cities or towns of the developing countries (Foo, 1997).

Malaysia, as a developing country also has experienced a steady economic growth and this has led to consumerism (that is, the doctrine that ever-increasing consumption of goods and services forms the basis of a sound, and the continual expansion of one's wants and needs for goods and services (http://www.businessdictionary.com/definition/consumerism.html) and waste generation, especially in the urban sector thereby has caused the depletion of natural resources

and resulted in significant challenges to the country's sustainable as well as ecological development. Thus, the Solid Waste and Public Cleansing Act 2007 was gazetted on 30 August 2007 with the purpose of paving the way for the federal take-over and privatization of this solid waste management. This was one of the government's decisions to enforce the segregation of household waste in year of 2013.

1.3 Research Problem / Problem Statement

As a developing country, the rate of waste generation in Malaysia had been on an increasing trend as a result of the population rapidly growth as well as industrialization since last few decades. Base on the data from the Departments of Statistics in Malaysia, the population has increased almost 20.24% from 23.494 million in year the year 2000 to 28.250 million in the year 2010. The gross manufacturing output has also increased almost 11.37% from RM 655.5 billion in the year of 2005 to RM 730 billion in the year of 2009. These raise the question of waste output that normally would accompany population and industrial growth in the clear absence of a mandatory waste disposal rules upon household though the industry has to abide by Scheduled Waste.

Moreover, by referring to the data which is produced by Ministry of Housing and Local Government, the national waste average rate was estimated at 0.711 kilogram per capita per day for year of 1991 through year 1993. This average rate was forecasted to increase to 0.8 kilogram per capita per day for year of 1994 through year 1999. This was anticipated to worsen to 1.5 kilogram per capita per day in year of 2000 (MHLG, 2000). 4.5 kilogram per capita per day waste output was projected for year 2003 (MHLG, 2003). In fact, the highest contribution of

solid waste would come from residential sector contributing to the range of 46% followed by the commercial sector in the range of 24% (Saeed et at., 2009).

According to the previous Housing and Local Government Minister Datuk Seri Kong Cho Ha (2008), the process of waste segregation by the public was the most important and was among the first step for to standardize practices in the waste management sector. This was seen as a step in the right direction for the national waste management in Malaysia. The failure to so would see Malaysia face unsustainable waste disposals given that the generation of waste has been increased from 19,000 tonnes in year 2005 to a forecasted 30,000 tonnes by year 2010.

As such, the household recycling and waste minimization behavior was presented as a crucial challenge and in the public context, public participation would be the key to increasing household recycling levels and minimizing waste generation. The reason was course the understanding that household waste minimization behavior was the important point to achieve sustainable waste management and these householders based projects has been underpinned theoretically by cognitive psychology used in marketing or communication design that would result in the reduction of solid waste in the long term (Tonglet et.al, 2004). It is such practical considerations and theoretical support that this study will be carried out to identify household environmental behavior in Malaysia and would be used as an important reference for the those interested in green activities.

1.**4 Research Objectives**

The research objectives of this research study are as follows.

I. To study and understand the recycling behavior of Malaysians as well as their level of participation in recycling activities.

II. To identify the determinants which influence the intention of recycling behavior among Malaysian householders

III. To examine the moderating impact of the prior experience in recycling activities for the past six months toward the relationship between those determinants and the intention of recycling behavioral among Malaysia householders.

1.5 Research Question:

Therefore the research questions are as follow:

1. What would-be the behavior among the householders in Malaysian and what are the levels of participation in a recycling activity in Malaysia?

2. What are the determinants which influence the intention of recycling behavior among Malaysian householders?

3. Is the prior experience in recycling activities for the past six months have the moderating impact on the relationship between those determinants and the intention of recycling behavioral among Malaysia householders?

1.6 Significance of the Study

In view of the waste output normally would accompany with the population and industrial growth, recycling activities become one of the most important waste management in Asian country. However, the recycling rate in Malaysia is pretty low at 5% compare with our neighbor country, for instance, Singapore at 56%, Thailand at 50% and Philippine at 12% (http://envdevmalaysia.wordpress.com/2009/02/23/malaysia-bemoans-low-recycling-rate/).

At such, this study will identify the householder recycling behavior in Malaysia in order to help those existing waste management companies to take the corrective actions to improve the recycling rate as well as their business. Besides, this study would also provide the valuable information about the determinants of householders recycling behavior in Malaysia which will be useful for those entrepreneurs who would want to get involved in recycling business.

1.7 Definition of Variables

The following terms and it's definition are explained as below in order to ensure the uniformity and understanding of these words which will use throughout the study.

1.7.1 General Environmental Concern

Environmental concern can be defined as the evaluation of information or attitude toward, personal behavior and others's behavior which have environmental consequences (Weigel et.al, 1978)

1.7.2 Perceived Social Norms

Social norm is measuring the social pressures as well as the social influences on an individual to perform or not to perform a behavior. If an individual perceived a people is very important for him or her to approve a behavior, the individual will be more likely to perform the behavior while conversely, if an individual perceived a people is less important for him or her to approve a behavior, the individual will be less likely to perform the behavior (Conner et.al, 1998).

1.7.3 Recycling Beliefs

Recycling belief is the people's belief about the environmental significant of a behavior (Stern, 2000).

1.7.4 Convenient

Inconvenient is perceived as few types of difficulty which facing by the person when recycle and this including the lack of time to recycle, lack of space to store the recyclables product, pest concerns, messiness, difficulty in moving a recycling bin or barrel to kerb and too few frop-off sites in inconvenient locations (Aceti, 2002)

1.7.5 Knowledge

Knowledge on waste management is including the procedure, general background and performance aspects (Hornik, 1995).

1.7.6 Prior Experience

Thru the past experience, respondent would able to have the knowledge about the green activity which is recycling and correlate with their green intention (Glor, 2009).

1.7.7 Intention of Recycling

A person's intention about a behavior is determined by the attitude, subjective norms and perceived behavioral control toward the behavior (Ajzen, 1991).

1.8 Organization of the Thesis

This study consists of five chapters. The first chapter will provide the background of the study. Then, it will follow by the grounds of concern, the seriousness of the problem, the implications of the research, the purpose of this research, the research questions and finally the definitions of key variables.

After that, the second chapter will discuss the literature review of this study. This had been include the general environmental concern, perceived social norms, recycling beliefs, convenient, knowledge, prior experience and intention to recycle. By referring to the literature review, the theoretical framework and hypotheses are developed.

Then, chapter three will cover the research methodology which will be used for this study. And, chapter four will mainly discuss the data analysis and summarize the results of the study. Finally, chapter five is the last chapter which recapitulates the study and discusses the major findings, implications and limitations of the study. The suggestions for future research and the conclusion will be included in chapter five as well.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction of the Chapter

In this chapter, I will begin with the three well-known theories about the relationship between human attitudes and behaviors. These theories include Ajzen and Fishbein's Model of Reasoned Action, Ajzen's Theory of Planned Behavior, and Leon Festinger's cognitive dissonance theory. Then, I will discuss about the Value Belief Norm Theory which always related with the environment attitude. After that, I will discuss on the theoretical framework and research model under this study base on the theories and models. At the end of this chapter, the previous researches as well as literature review for each variable will lead to the development on the hypotheses for this study.

2.2 Theories about Relationship between Human Attitudes and Behaviors

2.2.1 Ajzen and Fishbein's Model of Reasoned Action

Ajzen and Fishbein's Model of Reasoned Action (Figure 2.1) was one of the most widely applied and investigated theoretical model which link between behavior intention and action. Basically, this model was trying to explain that a person's action was actually determined by their own behavior's intention. It was a causal model which link the attitudes and subjective norm to the behavioral intention and then to the action.

Ajzen and Fishbein (1975) were argued that the behavior was actually determined by the behavior intention which was able to predict and explain by the subjective norm as well as the attitude towards that behavior. According to Ajzen and Fishbein (1975), subjective norm can be

defined as "the person's perception that most people who are important to him or her think he or she should or he or she should not perform the behavior in question" while an attitude can be defined as "an evaluative orientation toward the behavior; attitudes reflect the perceptions about whether the behavior is good or bad".

From the Ajzen and Fishbein's Model of Reasoned Action, attitude toward the behavioral intention was assumed as a function of both anticipated consequences of a given action as well as the evaluations of those consequences. On the other hand, subjective norm toward the behavioral intention was assumed as the awareness of a norm to act and the acceptance of those expectations. And, the important point for this model is, it was viewed the human being was rational and will then use the information in order to have the particular voluntary action.
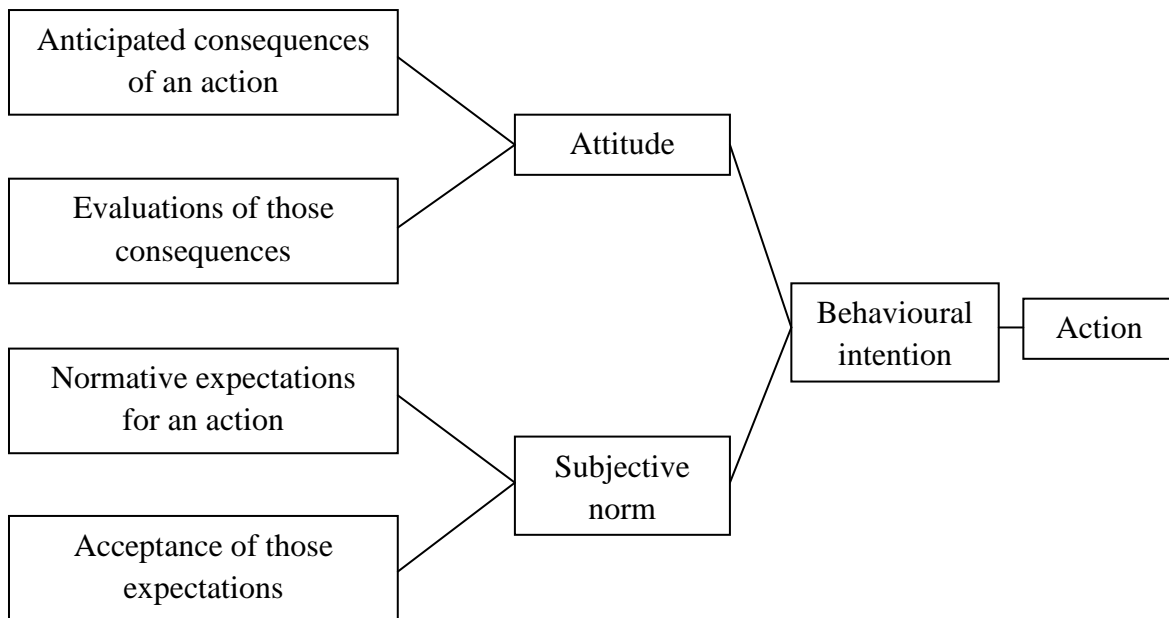
Figure 2.1: The Theory of Reasoned Action (Fishbein & Ajzen, 1975).

2.2.2 Ajzen's Theory of Planned Behavior

The Ajzen's Theory of Planned Behavior (Figure 2.2) which proposed by Ajzen (1985) was an expansion of his previous model which was Theory of Reasoned Action (Ajzen and Fishbein, 1975). The reason being of this was due to the previous model's limitations whereby people have the incomplete volitional control when they were dealing with the behavior. The main key different between Ajzen's Theory of Planned Behavior and Ajzen and Fishbein's Model of Reasoned Action is one more parameter, which is perceived behavior control had been added into Ajzen's Theory of Planned Behavior model.

According to this Ajzen's Theory of Planned Behavior, theoretically the stronger of an intention to engage in a behavior, the more likely should be its performance. However, Ajzen (1985) was argued that a behavior intention can be expressed in a behavior if and only if it is under volitional control. This also means that although some of the intention may meet this requirement which is attitude and subjective norm, the final performance still need to depend on some degree of non motivational factors and resources, for instance, time and money which all this were perceived behavioral control.
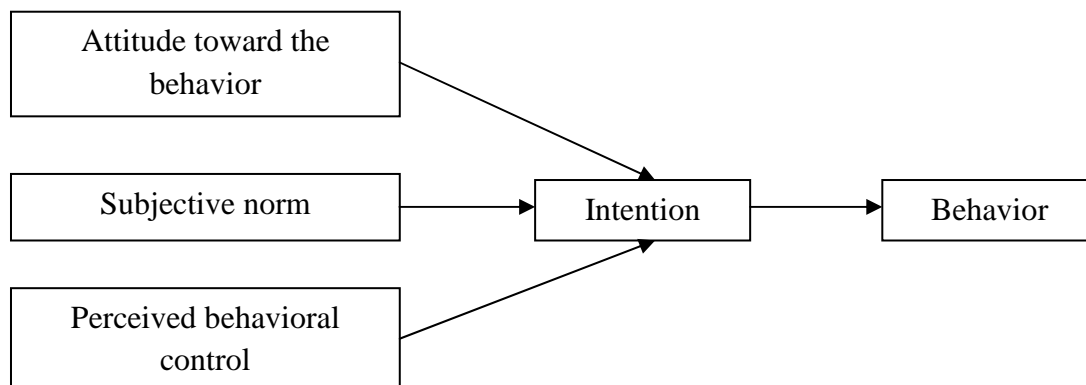
Figure 2.2: The Theory of Planned Behavior (Fishbein & Ajzen, 1975).

2.2.3 Leon Festinger's Cognitive Dissonance Theory

Leon Festinger's (1962) cognitive dissonance theory, one of the most widely investigated and tested in the research on social psychology. This theory also links the actions to the attitudes. Cognitive dissonance theory usually studied and examined in the research by social psychologists who study conservation behavior especially in the fields and area which included water conservation, energy consumption, as well as recycling behavior. The inconsistencies between environmental attitudes and conservation behaviors usually were the major focus of cognitive dissonance research.

Dissonance can be defined as "the existence of nonfitting relations among cognitions" according to Festinger (1962). At the same time, cognition can be defined as "any knowledge, opinion, or belief about the environment, about oneself, or about one's behavior." In short, cognitive dissonance theory indicates that a person will change their beliefs or attitudes to be match with their behavior whenever there is any inconsistence between attitude and behavior.

According to this theory, dissonance is experienced as an uncomfortable and whenever the cognition which a person holds, it will follow from the opposite of at least one other cognition that the person holds. The assumption of this theory is that people will either align their behaviors to match their attitudes, or align their attitudes to match their behavior whenever their behaviors and attitudes dissonant or so-called inconsistent. In summary, once people have found their own attitudes and behaviors become dissonance, they will most likely seek to realign both of their attitudes and behaviors until it match each other.

Basically the assumptions from this Leon Festinger's (1962) cognitive dissonance theory as below:

I. Whenever there is any existence of dissonance whereby the person feels very uncomfortable, he or she will try to reduce the dissonance until he or she achieve the consonance;

II. If the dissonance is present, beside reduce it, he or she will try to avoid anything which will cause the dissonance increasing.

However, one of the main assumption of cognitive dissonance theory is humans have an inherent where they will try to reduce the dissonance in their lives whenever it exist. At such, Leon Festinger (1962) was argued that dissonance may never be entirely eliminated in our lives. The reason being is because of the dissonance is a part of everyday human's life. Hence, humans will keep trying to do whatever they can in order to reduce the dissonance in their lives although they aware it will never able to be eliminated completely.

One of the examples had been given by Festinger (1962) was about a smoker. According to Festinger (1962), when a smoker knows that smoking is actually bad or disadvantage to their health, the smoker will try their best to reduce this dissonance by either quitting from smoke habit which is rationalizing his or her behavior, or changing his or her knowledge to support his or her belief that smoking is not bad to his or her health. However, if the smoker not able to done either one of them, he or she will live with the dissonance in his or her live whereby his or her behavior is not aligned with his or her belief that smoking is hazardous to the health.

On top of that, the dissonance for a person is depending on the degrees of importance of the dissonance to him or her (Festinger 1962). For instance, the more important a person places on a particular behavior or attitude, the more dissonance he or she will experience if the attitude and behavior are not aligned. For example, if a person who think that manage waste is a behavior

that they believe could help to improve the current environmental conditions and he or she does not manage waste, this will lead to this person may have higher levels of dissonance if compare with those do not manage waste and at the same time they think that this action would not help to improve the environmental conditions much.

2.2.4 Value Belief Norm Theory

A number of empirical studied had been carried out on the structure of environmental attitudes and they found that the evidence of the distinction between altruistic, biospeheric and egoistic which is the model referred to value-belief-norm model (VBN) (Schultz, 2001).

According to value-belief-norm model (VBN), it contends that the belief of a person is directly influenced by his or her important value. This is also means that the important value of a person is directly influence their pro-environmental norms which lead to the pro-environmental behavior. This theory is actually suggested that the idea of the effect of the values on pro-environmental behavior is mediated by the beliefs which are concerning on perceived threats to the important values and they perceived the ability to take action in order to alleviate those threats through personal norms (Stern et.al, 1999).

Besides, there have quite a number of researches were showing their result which support to the use of values in predicting pro-environmental behavior (Grob, 1995). For instances, the result was showing that the self-transcendence had positively correlated with pro-environmental behaviors while self-enhancement values had negatively correlated with pro-environmental behaviors (Karp, 1996). However, values had been found to be related with post-materialism as well as openness to the new thinking which were positively influence on pro-environmental behavior (Grob, 1995).

A survey which had been done in Sweden by distributing the mail with 1,400 respondents mail-back, was tested the hierarchical model of the effects of general value orientation, ecocentric and anthropocentric values, awareness of environmental problems, personal norms, and the frequency in which they engaged in 25 different pro-environmental behavior. In this survey, the result was showing that the general value orientation influenced the environmental values, environmental problem awareness, and personal norms. On top of that, the environmental values and environmental problem awareness had been found to be influenced the personal norms, and personal norms then directly influenced the engagement in pro-environmental behaviors. However, the influence of environmental values was mediated by personal norms according to the research (Nordlund et.al, 2002).

2.2.5 New Ecological Paradigm Scale

Dunlap and Van Liere were developed a twelve-item Likert scale, namely New Environmental Paradigm scale (NEP) in year of 1978. This New Environmental Paradigm scale (NEP) was developed at that time with the purpose of measuring the public's awareness on the environmental issues or problems due to the increasing of the public's awareness on the environmental issues nowadays as a result of the emergence of environmental problems either locally or globally. Basically, a person's belief regarding the nature of the Earth as well as the relationship between human and the Earth will tap into this scale. The term of "paradigm" was later on used by Dunlap and Van Liere to propose that the New Environmental Paradigm scale (NEP) to measure the worldview or coherent cognitive structure (Stern et.al, 1995).

The New Environmental Paradigm scale (NEP) had been widely used globally. It had been used to investigate the environment orientation of residents from countries which including

United State, Canada, Japan, Turkey, Sweden, and some college students in Spain and Latin America. The interpretation of a high score on this New Environmental Paradigm scale (NEP) represents that a pro-ecological orientation which also recommend a leaning towards pro-environmental beliefs and attitudes on the particular issues (Dunlap et.al, 2000).

After that, there was an amended New Environmental Paradigm scale (NEP) published in year of 2000, namely New Ecological Paradigm scale (NEP). However, this revised New Ecological Paradigm scale (NEP) actually was still measuring on the endorsement of an ecological worldview. But, one of the different between the New Environmental Paradigm scale (NEP) and New Ecological Paradigm scale (NEP) was the number of items in the New Ecological Paradigm scale (NEP) was increased to fifteen items compare with the twelve items in the New Environmental Paradigm scale (NEP) with the reason of so-called to have more comprehensive coverage. Furthermore, the New Ecological Paradigm scale (NEP) was also corrected from the weakness of lack of balance in item direction, sexist terminology as well as the outmoded from the New Ecological Paradigm scale (NEP) (Dunlap et.al, 2000).

Several tests had been carried out with the New Ecological Paradigm scale (NEP) and the results was showing that it was predictive while validity on the construction. Besides, the internal consistency, which is the alpha value for New Ecological Paradigm scale (NEP) had also been slightly improved to 0.83 if compare with the alpha value for New Environmental Paradigm scale (NEP) at 0.81 (Dunlap et.al, 2000).

As a conclusion, the New Environmental Paradigm scale (NEP) is a very useful tool which used widely to relate and to elaborate the specific of attitudes and behaviors which influenced by the social structure and the process of socialization (Stern et.al,1995).

2.3 Comparison of Models and Theories

Both of the Ajzen and Fishbein's Model of Reasoned Action and the Ajzen's Theory of Planned Behavior describe the relationship between the behavior intention and the action. For the Ajzen and Fishbein's Model of Reasoned Action, behavioral intentions were viewed as the function for the both of the attitudes and subjective norms while for the Ajzen's Theory of Planned Behavior, behavioral intentions were viewed as the function for attitude toward the behavior, subjective norm and perceived behavioral control.

The similarity between both of these models is the behavior intention view as the independent variable, whereas the differentiation between both of these models is the existence of additional function for the Ajzen's Theory of Planned Behavior, which is perceived behavioral control.

Besides, Leon Festingers's Cognitive Dissonance Theory is trying to explain the links of the actions to the attitudes. According to this theory, a person will change either their beliefs or attitudes whenever they experienced uncomfortable due to the different knowledge, opinion, or belief about the environment, about oneself, or about one's behavior. In this theory, the assumption is that people will either align their behaviors to match their attitudes, or align their attitudes to match their behavior whenever their behaviors and attitudes dissonant or so-called inconsistent. At such, the knowledge, opinion, or belief might playing the role in the determination of one's attitude or behavioral.

Moreover, Value Belief Norm Theory also elaborated on the pro-environmental behavior as dependent variable. According to this theory, the belief of a person is directly impact a person's important value. The important value of a person will then directly influence his or her pro-environmental norms and at the end of the day lead to the changes on his or her pro-

environmental behavior. Furthermore, New Ecological Paradigm Scale (NEP) is a useful tool to investigate the relationship between specific of attitudes and behaviors with the social structure and the socialization process

In summary, all of the models and theories are explained the relationship of different independent variables toward the behavioral intention.

2.4 Theoretical Framework of the Study

The theoretical framework under this study will be described in this section.

2.4.1 Research Model of the Study

This study had been derived the research model from the Ajzen and Fishbein's Model of Reasoned Action and Ajzen's Theory of Planned Behavior.

With the derivation from the Ajzen and Fishbein's Model of Reasoned Action and Ajzen's Theory of Planned Behavior, the dependent variable for this study will be the intention to recycle among householder in Malaysia. While for the independent variables which proposed under this study are including general environment concern, perceived social norms, recycling beliefs, convenient and knowledge. The independent variables which proposed under this study are derived from the Ajzen's Theory of Planned Behavior where the subjective norm, attitude and perceived behavioral control influence the intention. And on top of that, prior experience is proposed as moderator variable in this study based on the empirical research.

At such, the research model had been developed as shown in Figure 2.3 as below:

Figure 2.3 **: Reseach Model**

Independent Variables   Moderator   Dependent Variables
                               Variables

General Environment
Concern

Perceived Social
Norms

Recycling
Beliefs

Intention to
Recycle

Convenience

Prior
Experience

Knowledge
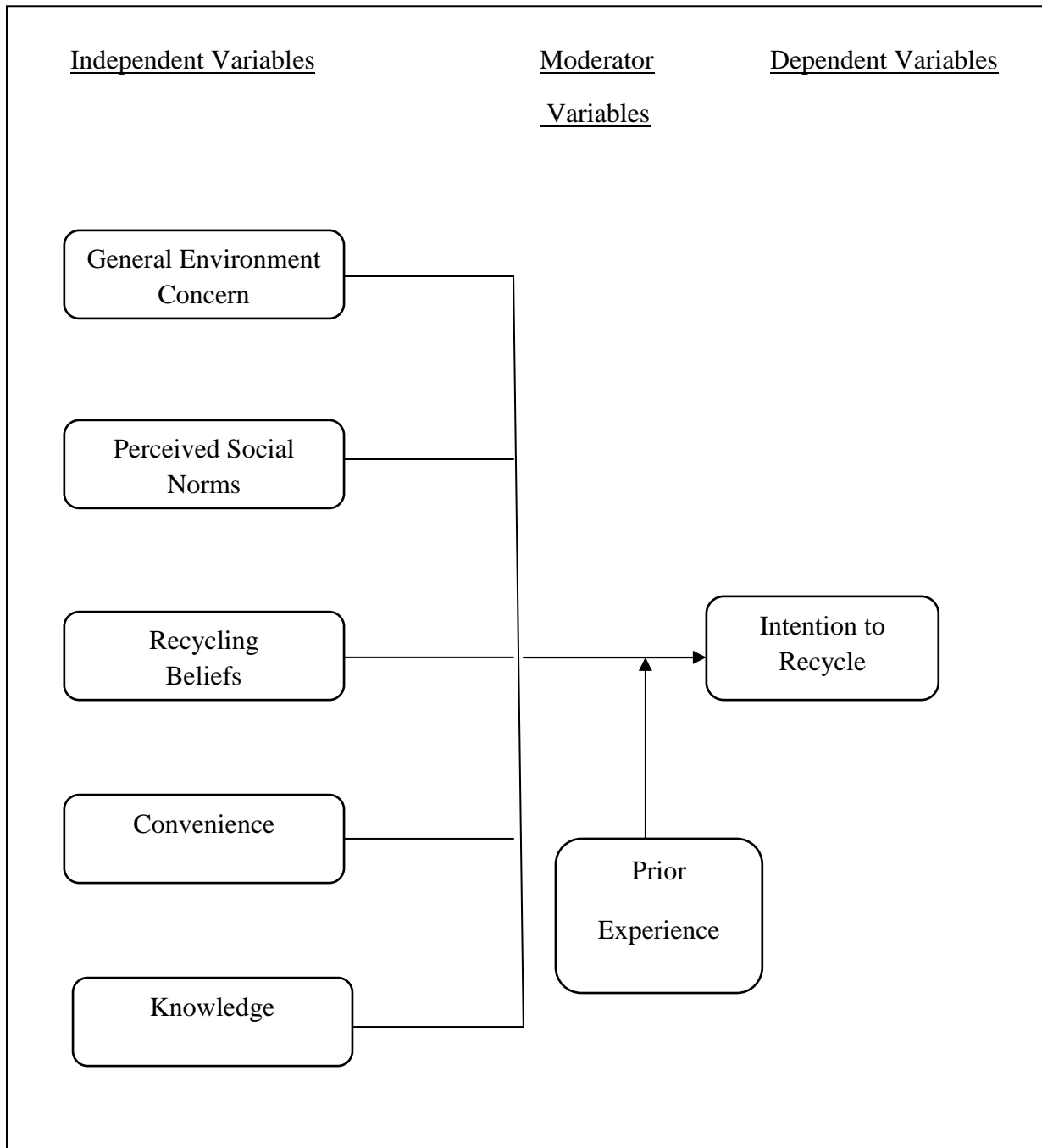
2. 5 Hypotheses Development of the Study

During this section, it will develop the hypotheses based on the research model as well as empirical studied as shown in Figure 2.3.

2.5.1 General Environmental Concern

General environmental concern always the most frequent studied determinant for pro-environmental behavior. Environmental concern can be defined as the evaluation of information or attitude toward, personal behavior and others's behavior which have environmental consequences (Weigel et.al, 1978).

Since the past 30 years, a lot of researches adopt general environmental concern which primarily been correlated in nature as the determinant of pro-environmental behavior. Although the relationship between general environmental concern and pro-environmental behavior is weak to moderate generally, however, there is evidence empirical argued that general environmental concern might be an important indirect determinant to specific pro-environmental behavior. The weak to moderate relationship between general environmental concern and pro-environmental behavior is attributed to the incorrect assumption that general attitude, for instance, general environmental concern is a direct determinant of a specific behavior. General environmental concern might be an important indirect determinant of pro-environmental behavior which it is acting as a prerequisite for more situation specific cognitions. And, these situation specific cognitions may be stronger while it is a direct determinant of specific pro-environmental behavior (Bamberg, 2003).

Beside, some of the empirical studies have found the evidence that public's concern on environmental quality and engagement in pro-environmental behaviors is positively correlated to

the affluence. The general environmental issues concern such as the knowledge on environmental issues and the concern on the consequences of waste is a significant predictor on recycling behavior and it is also correlated with the waste minimization factor. Those respondents from the survey are more likely to engage in waste minimization behavior are those persons who more likely to be concerned on environmental issues and the impact of waste on environment and their community. Thus, the waste minimization campaigns suggested to be organize by focusing on how the waste minimization can help to preserve our environment and maintain a good place for everyone to live (Tonglet, 2004). In fact, caring for a healthy community where the people living is another important factor which influence a person's intention to participate in recycling activities (Davis, 2006).

The studies show that most of the people who concern on ecological is not seeking on the economic advantage but they are seeking rather satisfaction on what they are doing is something that worthwhile and beneficial (Hopper et al., 1991). Therefore, the recycling schemes that suggested to be optimized include ongoing public education as well as waste awareness (Wilson et al., 2007).

Furthermore, other researchers found that when they conducted the literature of review on the influence of general environmental concern to the pro-environmental behavior, other parameters which include knowledge concerning environmental problems, personal responsibility, internal locus of control, and perceived threat of this environmental problem to one's health are affect pro-environmental behavior. As such, future research was suggested to investigate the extent to which of these so-called parameters or variables influenced pro-environmental behaviors as well as the level of the interaction between these variables on pro-environmental behaviors (Fransson, 1999).

However, some might find that general environmental concern is not significant to be a good predictor for recycling performance as so many people recycling nowadays (Aceti, 2002). Either recyclers or non-recyclers have the pre-environmental attitudes and the reasons for them to recycle are widespread. But general environmental concern can appear to be predictor for recycling performance if and only if when recycling require a lot of effort on it (Schultz, 1995).

Hence, base on the findings from the previous research, the following hypothesis was developed:

H1: General environment concern is positively correlated with the intention of householder recycling behavior.

2.5.2 Perceived Social Norms

Social norm is measuring the social pressures as well as the social influences on an individual to perform or not to perform a behavior. If an individual perceived a people is very important for him or her to approve a behavior, the individual will be more likely to perform the behavior while conversely, if an individual perceived a people is less important for him or her to approve a behavior, the individual will be less likely to perform the behavior (Conner et.al, 1998).

Empirical studies show that variables which related to socially norm activities were likely influence recycling behavior (Ramayah, 2012). The visibility of curbside recycling programs are increasing the perception of social pressure to recycle as other people is able to see and know

how much is the effort of a person doing good to the public or not doing good to the public and this can be work as a reminder for people to recycle (Vining et.al, 1990).

The researches which had been carried out thru both of the qualitative and quantitative methods support the intention of green behavior causing by social norms where one the society's expectations is to keep a clean environment. Recycling nowadays had becomes "the right thing to do" and this is perceived by the society whereby individual not even has the recycling knowledge but they are also aware on the consequences of not recycling. Individual feels recycling is a good moral obligation and they believes that his or her contributions on recycling is effective (Aung et al., 2006).

Furthermore, some of the people are motivated to recycle as the pressure which they had received from their family, friends and relatives. The likelihood of participation on recycling program will be increasing if the person knows that his or her family member, relatives, friends and neighbour are participating in recycling activities (Aceti, 2002). Beside the householders, the studies also doing the research on the academics field where by the academic adopt the sustainable practices which was influenced most by the pressure from college administrators and students (Chen, 2011).

However, the social pressure or influence is high if and only if when the visibility of the behavior is high. This is also mean that if the visibility is low, for instance, drop-off schemes, then this social norms are insignificant become predictor on behavior of a person (Vining et al. 1990).

During the behavioral situation is introduced, usually an individual's first response to it is to use relevant social norms which "represent the values and attitudes of significant others" but it

might too general to have people to action. However, social norms may be internalized and later become personal norms that related to the situation (Thøgersen, 1996).

Personal norms are able to influence the behaviour is because of they actually related the behaviour with the person's self-concept. For instances, by behaving in the way which consistent or so-called parallel with the personal norm will make the person feel good to himself or herself. On the other hand, by behaving in the opposite way that is violates his or her norm will make the person feel bad about himself or herself (Hopper et.al, 1991).

Moreover, personal norms actually need two conditions or criteria in order to cause the performance of a behavior. The first condition is that the individual must be able to recognize every of his or her action have consequences whereby Schwartz calls this as the Awareness of Consequences. And, the second condition is that he or she is personally responsible on the consequences created which so-called Ascription of Responsibility. After all, a person's behavior will be in accordance with personal norms and therefore social norms (Hopper et.al, 1991).

At such, base on the findings from the previous research, the following hypothesis was developed:

H2: Perceived social norm is positively correlated with the intention of householder recycling behavior.