The Role of Perceived Consumer Effectiveness on Value-Attitude-Behaviour Model in Green Buying Behaviour Context

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Abstract: The upward trend of environmental deterioration had motivated the researchers to focus their studies towards the environmental domains both in the pro-environmental purchase and non-purchase studies. Value-Attitude-Behaviour (V-A-B) model is one of the popular models used in the environmental behaviourual studies over the last few decades. Nonetheless, its application on green buying behaviour warrants future research as the nature and motivations of this behaviour are different from other general purchase-related behaviour. Recently, the concept of perceived consumer effectiveness (PCE) has been applied extensively to explain the environmental attitude and behaviour. However, past studies reported on its role on V-A-B model in the context of green buying behaviour is still limited. As such, this paper aims to review the underpinning theories together with relevant literatures and to propose an integrated framework to examine the role of PCE on the V-A-B model in future green buying behavioural studies.

Key words: PCE, values, environmental attitude, green purchase attitude and behaviour.

INTRODUCTION

Value-attitude-behaviour (V-A-B) model (Homer and Kahle, 1988) is a popular model which implies that “the influence should theoretically flow from abstract values to mid-range attitudes to specific behaviour” (p. 638). It means that values influence attitude, and attitude in turn, influences behaviour. This model has been widely applied in various non-consumption and consumption-related studies. For instance, retail career choice (Shim, et al., 1999) and e-shopping behaviour (Jawawardhena, 2004). Due to the upward pressure of environmental deterioration and an increased level of environmental concern, this model has also been applied to the environmental studies (McCarty and Shrum, 1994, Kim, 2002, Kim and Choi, 2003). However, the arguments on the direct and indirect effects of values on environmental behaviour (Karp, 1996; Kim, 2002) as well as the attitude-behaviour gap are still inconclusive (Mainieri, et al., 1997).

Green buying behaviour is a type of pro-environmental behaviour (Kim and Choi, 2005). The nature and motivations of these behaviours are different from other general purchase-related consumer behaviours (McCarty and Shrum, 2001). The inconsistent relations between environmental attitude and environmental behaviour, and the issue of perceived consumer effectiveness (PCE) in solving the environmental problems are always the centre of discussions in the environmental studies. Consumers are not concerned about the environment and unwilling to perform pro-environmental behaviour if they do not believe that their efforts or actions are effective in solving the environmental problems (Kim, 2002; Kim and Choi, 2003, 2005). As such, this paper aims to review the underpinning theories together with the relevant literatures related to PCE, values, attitudes, and behaviour to propose an integrated framework extended from V-A-B model for future empirical research in the context of green buying behaviour.

Literature Review:
Green Buying Behaviour:
Green consumerism or green buying behaviour is one of the pro-environmental behaviour. It refers to purchasing and consuming products that have minimal impacts on the environment (Mainieri, et al., 1997). There are different terms used interchangeably with green buying behaviour (Kim, 2002; Kim and Choi, 2003, 2005) such as pro-environmental purchase behaviour (Tilikidou, 2006; Soutar, et al., 1994), environmentally responsible purchase behaviour (Follows and Jobber, 2000); and green purchase behaviour (Mostafa, 2007; Shamdasani, et al., 1993). These terms are often used in the similar meanings used to examine the buying behaviour towards green product or environmentally sound product.

Green product can be defined as a product that will not pollute the earth or deplete natural resources, and it can be recycled or conserved (Mostafa, 2007). Very often, “eco-friendly”, “environmentally safe”, “recyclable”, “biodegradable” and “ozone friendly” are the common green advertising claims used by the companies in promoting the green products. Some examples of these products are “household items manufactured with post-consumer plastics or paper, recyclable or reusable packaging, energy-efficient light bulbs and detergent
containing ingredients that are biodegradable, non-polluting and free of synthetic dyes or perfumes” (Mostafa, 2007, p.220). However, the share of green market activities is still lacking (Peattie, 2001).

**Personal Values:**
Rokeach’s model of values (1973) defines the values as the “enduring beliefs that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or conserve mode of conduct or end state of existence”, and grouped the values into instrumental values (helpful, loving, and obedient values) and terminal values (exciting life, a world of beauty, and wisdom values). This model has been criticised by the researchers due to the lengthy of ranking tasks (36 items), and the relevancy of the values to daily life (Clawson and Vinson, 1978). The model of List of Values (Kahle, 1983) consists of nine values (excitement, fun and enjoyment of life, warm relationships with others, self-fulfillment, being well-respected, sense of accomplishment, security, and self-respect) which more preferred by the researchers due to its simplicity of administration and high reliability (Homer and Kahle, 1988; McCarty and Shrum, 1994; Shim and Eastlick, 1998). However, it is not a stable instrument to be applied across cultures (Grunert and Juhl, 1995), and it seems to be too focused on general consumer life (Hanse, 2008).

According to Schwartz (1992) values are the guiding principles in one’s life from a more abstract standpoint that affect one’s views on many issues. Ten values are arrayed along two conflicting dimensions, (1) self-enhancement values pursue the self-interest (power and achievement values), versus self-transcendence values concern the welfare and interests of others (universalism and benevolence values) and (2) the openness to change values emphasize independent action, thought and feeling, and readiness for new experience (self-direction, hedonism and stimulation values), versus conservation values emphasize self-restriction, order and resistance to change (security, conformity and tradition values). However, some of the researchers claimed that the original instrument of 56-items is too long and time consuming to be used in a survey and reduced them into 37 items (Schultz and Zelezny, 1998, 1999), 22 items (Kim, 2002) 20 items (Hanson, 2008), 12 items (Aoyagi-Usui, 2001), and 10 items of Short Schwartz’s Scale Survey (Lindeman and Verkasalo, 2005).

**General Attitudes and Specific Attitudes:**
Weigel (1983) defines attitude as “an enduring set of beliefs about an object that predisposes people to behave in particular ways toward the object”. It refers to the “psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour” (Eagle and Chaiken, 1993). Theory of Reasoned Action (Fishbein and Ajzen, 1975) is the most popular theory used to discuss the attitude-behaviour relationship. According to them, a specific attitude is known to be relatively strong in predicting a single behaviour on a particular attitude object, while a general attitude explains the general tendency engaged in relevant behaviours on a category of attitude objects. Nevertheless, they have warned against the use of general attitudes to predict specific behaviour and suggested that a specific attitude is better than general attitude in predicting the specific behaviour. It means that the more specific the attitude measure, the stronger is its correlation with the behavioural action.

**Relationships between Values-Attitudes, Values-Behaviour, and Attitude-Behaviour:**
Values serve as the determinants of attitudes and behaviours (Olson and Zanna, 1994). Many researchers have demonstrated a relationship between values and attitudes towards online grocery shopping (Hansen, 2008); values and ethical beliefs (Steenhaut and Kenhove, 2006), and values-environmental attitude (Schultz and Zelezny, 1999). On the other hand, researchers have reported that values are powerful enough to influence behaviour directly in the empirical investigations of environmental behaviour (Karp, 1996; Aoyagi-Hsui, 2001), and gift-giving (Beatty, Kahle and Homer, 1991). Based on a study conducted by Butler and Francis (1997), it is revealed that the general environmental attitude influences specific clothing environmental attitudes, which in turn, influence apparel buying behaviour. Sun and Wilson (2008) also suggested that both types of attitude (general and specific) should be studied together in an empirical research, as the formation of specific attitude towards a new object is likely to be influenced by the general attitudes. However, the empirical research regarding general and specific attitude relations is still limited.

Milfont (2007, p.12) defined environmental attitude as the “psychological tendency that is expressed by evaluating perceptions of or beliefs regarding the natural environment, including factors affecting its quality, with some degree of favour or disfavour”. On the other hand, Hines, et al., (1986-1987) divided the environmental attitudes into “attitudes towards the environment” and “attitudes towards a specific environmental behaviour”. Hines, et al., (1986-1987) reported that the lower attitude-behaviour correlation was found when attitude was operationalised as a general environmental attitude compared to when it was operationalised as a specific attitude towards environmental behaviour. Besides, Mainieri, et al., (1997) revealed that the green buying behaviours were only significantly related to specific environmental belief (specific attitude), but not related to the general environmental concern. These two results have confirmed the suggestion in Ajzen and Fishbein (1977) that higher correlations are obtained when behaviour and attitudes are measured in...
behaviours. PCE and environmental attitude are the important mediators between collectivistic values and green

The Roles of PCE on Value-Attitude-Behaviour Model:

Value-Attitude-Behaviour Model:

The concept of PCE was first described by Kinnear, et al., (1974) as a measure of the extent to which an individual believes that he or she can be effective in pollution abatement. Researchers in the later stage have stated that the concept of PCE is related to the concept of perceived behavioural control (Ellen, et al., 1991) and the concept of internal locus of control (Joones, 2008). Locus of control (Rotter, 1966) refers to one’s belief in his or her abilities to control life events and an individual with an internal locus of control believes that outcomes are related to his or her behaviour or personal investment (e.g. time or effort). More interestingly, the term of PCE is only used in the environmental studies and refers to the perceived confidence of an individual in solving the environmental problems with his or her effort exerted.

PCE is measured as an element of the personality variables to predict ecological concern (Kinner, et al., 1974) and ecological consumption responsible patterns (Balderjahn, 1988). It is distinct from environmental concern and contributes uniquely in predicting certain EB (Ellen, et al., 1991). PCE was positively related to environmental attitude (Kim, 2003: 2005). People who have exhibited higher PCE are likely to be more environmentally concerned than those who have lower PCE. Moreover, PCE is found to be significantly related to different types of environmental behaviour as well (Balderjahn, 1988; Ellen, et al., 1991; Roberts, 1996; Straughan and Roberts, 1999; Lee and Holden, 1999; Kim, 2002; Kim and Choi, 2003, 2005; Webb, et al., 2008; Joonas, 2008). More interestingly, researchers argue that PCE can function more than just a direct predictor of behaviour; it may also moderate A-B relations (Berger and Corbin, 1992). In terms of the empirical investigation results, the moderating role of PCE between environmental attitude and environmental behaviour can be found in Berger and Corbin (1992); Kim (2002) and Laskova (2007).

The Roles of PCE on Value-Attitude-Behaviour Model:

Kim and Choi (2003) investigated the effects of cultural values (collectivism), PCE, environmental attitude on four types of pro-environmental behaviour (green buying, political, energy saving, and recycling behaviours) based on V-A-B hierarchical model. The effects of PCE vary with different types of pro-environmental behaviours. PCE and environmental attitude are the important mediators between collectivistic values and green
buying behaviour in this study. Kim and Choi (2005) reported that PCE was a powerful mediating variable between collectivistic value orientations and green buying behaviour, without going through the environmental attitude. The cultural value orientations can influence an individual’s tendency to buy green products if he or she believes that his or her green purchase behaviour can be effective in solving environmental problems. The mediating effect of environmental attitude on collectivism values and green buying behaviour is not reported in this study. Schwartz (1992) warned that a simple equation between individual values and cultural values could be misleading, so it would be important to understand the influence of personal values on PCE, rather than only focus on the cultural values in future environmental studies.

**Future Research:**

Homer and Kahle (1988) suggested that V-A-B hierarchical model should be verified in different product and industrial situations. Future research should test the V-A-B model in the context of green buying behaviour. PCE has been reported as a powerful predictor to explain environmental attitude and pro-environmental behaviour, a moderator between attitude and behaviour, and a mediator between cultural values and behaviour. However, its reported roles on V-A-B model are still limited in the context of green buying behaviour. Furthermore, the lack of causal analysis conducted in previous environmental studies had limited the researchers to explore the causal influences among the variables on the environmental behavioural outcomes. Therefore, future research should consider testing the roles of PCE on V-A-B model in order to derive a framework to better understand the relative importance of personal values on PCE, and to enhance PCE in promoting environmentally friendly attitudes and to motivate consumers to purchase in an ecologically conscious manner. Four research questions are then raised:

1. Which is the most prominent predictor (personal values, PCE, environmental attitude, and green buying attitude) on green buying behaviour?
2. Do personal values affect PCE, environmental attitude, and attitude to buy the green products?
3. Does general environmental attitude able to act as a direct determinant on green buying behaviour, or it should be viewed as an indirect determinant on such behaviour?
4. What are the roles of PCE on the proposed framework; a predictor, mediator or moderator?
5. Do personal values, PCE, environmental attitude, green buying attitude have interaction effect on green buying behaviour in the structure model?

Therefore, an extension of the V-A-B model has been proposed in Figure 1 to answer the aforementioned questions.

**Fig. 1:** A Proposed framework extended from V-A-B model to study green buying behaviour (V= personal values, PCE= perceived consumer effectiveness, EA= environmental attitude, GBA= green buying attitude, GBB= green buying behaviour).

**Conclusion:**

A framework extended from V-A-B model is expected to provide a clearer picture to the firms especially with respect to the effects of PCE. It would provide a better understanding to the firms on the causal relationships among the variables and contributes to the formulation of green marketing strategies. Consumers are unwilling to spend their time or effort to shift from buying conventional products to green products if they have a lower PCE in mind, regardless of whether they are or are not environmentally concerned. Consumers need to be empowered that they can be personally effective in combating environmental problems. Firms need to deliver messages that are explicitly effective to motivate green buying behaviour as to convince the individual to believe that his or her green purchase actions are certainly able to make a difference in minimizing the environmental deterioration. The joint efforts and cooperation from all parties are able to generate a more ecological conscious consumption manner among the society and produce a healthier environmental quality in future.
REFERENCES


