

Towards Developing a Conceptual Framework of Environmentally Significant Behaviour

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Abstract

Considering the recent concern over environmental issues and human behavior, the environmentally significant behaviour has received significant research attention. Environmentally significant behaviour indicates individuals' way of living in harmony with the environment. It is assumed that when an individual embraces environmentally significant behaviour, the person would be willing to sacrifice one's own immediate interest for the environment. However, it is still not fully understood that what factors affect individuals' environmentally significant behavior. The present study is such an effort to fill this gap. The objective of this study is to develop a model that addresses the factors that contribute to the environmentally significant behaviour. This research is expected to provide useful direction for the policy makers to combat environmental issues.

Keywords: Environmentally Significant Behaviour, New Ecological Paradigm, Personal Norm, Conceptual Framework

1. Introduction

Human behaviour has always been the focal point of research in the field of environmentalism. Indeed the relationship between nature and human need holds the key for the betterment of the environment (Haron, Paim and Yahaya, 2005). Therefore, environmentally significant behavior became the center of research attention in the recent years. Environmentally significant behaviour indicates person's way of living in harmony with the environment (Chan, 1996). It is assumed that when an individual embraces environmentally significant behaviour, that person is likely to be willing to sacrifice his/her own immediate interest for the sake of environment (Bruvold, 1973). However, it is still not fully discovered that what factors positively affect individuals' environmentally significant behavior. Considering this the present study attempts to fill the gap in the existing literature.

This study aims to develop model that addresses the factors that contribute to the environmentally significant behaviour. Based on value-belief-norm theory and norm-activation theory, it is expected that environmentally significant behavior is predominantly driven by new ecological paradigm and pro-environmental personal norm. Norm-activation theory helps to explain the effect of personal norm in activating environmentally significant behaviour. On the other hand, the New Ecological Paradigm is connected to personal norm through the generalisation of value-belief-norm theory (Dunlap *et al.*, 2000; Stern, 2000). Past studies found support for the relationship between new ecological paradigm and environmentally significant behavior as well as between personal norm and environmentally significant behavior (Poortinga *et al.*, 2004). However, there is a dearth of research that examined the direct link between pro-environmental personal norm in relation to environmentally significant behaviour. Moreover, the mediating role of pro-environmental personal norm between New Ecological Paradigm and environmentally significant behaviour is yet to be considered.

This research is expected to provide support for the policy formulation to combat environmental issues. The effect from social and psychological perspective of an individual would shape the human behaviour. Environmental problems that are caused by human behaviour can be mitigated by changing the relevant behaviour to reduce the environmental problems. Thus, understanding factors that influence behaviour provides the necessary guidance for marketers to decide on market segmentation and product positioning. In addition, marketers could apply the knowledge on the effect of general belief and personal norm on environmentally significant behaviour for marketing communication of green products.

The rest of the paper is twofold. First, relevant literature is reviewed pertaining to environmentally significant behavior, personal norm and new ecological paradigm. Next, a conceptual framework is developed. Lastly, conclusion has been made and managerial implications are suggested.

1.1 Environmentally Significant Behaviour

In recent years, people became very conscious about the phenomenon *environmentally significant behaviour*. This is because, the natural resources of earth is reducing at its

alarming stage. Moreover, environmental pollution and hazards made people's life troublesome. Thus, it is the utmost necessity to be concerned about one's environmentally significant behaviour. Environmentally significant behaviour provides the understanding of individuals' way of living in harmony with the environment. When individuals embrace environmentally significant behaviour, it is expected that they will be willing to sacrifice their immediate self-interest by considering the welfare and wellbeing of the environment (Nordlund and Garvill, 2002). Stern (2000) has summarized that attitudinal variables, personal capabilities, contextual factors, habit and routine affect environmentally significant behaviour. Nonetheless, it is not fully explored the causes that may lead to the environmentally significant behaviour.

1.2 Personal Norm

Obligatory sense of the individual for the benefit of the environment becomes a push factor on environmentally significant behaviour (Harland *et al.*, 1999; Nordlund and Garvill, 2002). However, the level of belief that affects the immediate self-interest and the environment motivate the individual environmentally significant behaviour. Personal norm is directly linked to environmentally significant behaviour in the VBN theory. This variable acts as the changing point where beliefs are related to environmentally significant behaviour. Personal norm is activated through the sense of obligation for ameliorative action to reduce environmental threat. Noturprisingly, Thøgersen (2006) found that activated personal norm would lead to performance of environmentally significant behaviour by the affected people. Therefore, personal norm undoubtedly acts as an important variable to be studied in the relationship with environmentally significant behaviour.

1.3 New Ecological Paradigm

New Ecological Paradigm (NEP) was introduced as an improved scale of New Environmental Paradigm (Dunlap, 2008; Dunlap *et al.*, 2000). This revised NEP scale captures the essence of general beliefs in the VBN theory. New Ecological Paradigm delves into the individual ecological worldview on humanity's relationship with the environment. Overall outlook of the environment is to be represented in NEP. Human perception of the overall state of the environment, ecological perspective and the balance between human and nature are captured in the NEP. The NEP measurement items are broadly phrased to obtain an overview perspective from the individual on the state of the environment. Positive response on the NEP items would indicate the level of ecological worldview held by the individual on situational context.

2. Conceptualisation of the Research Framework

The VBN theory is a continuous linkage of value orientation, belief and norm to explain environmentally significant behaviour of an individual. Figure 1 describes the simplified VBN theory to illustrate the flow of construct relationship.

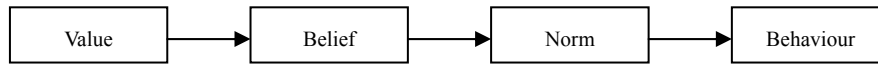


Figure 1. Overview of the VBN theory
Source: Stern (2000)

Stern *et al.* (1995) hypothesized that NEP is connected to the norm-activation theory representing folklore ecological theory which general beliefs could be inferred to specific belief. Hence, general belief is linked to specific belief consisting of awareness of consequences and ascription of responsibility. Therefore, belief is streamlined from general towards specific nature of the point of interest.

Norm-activation theory (Schwartz, 1977) posited personal norm would be activated once the level of belief of an individual is high. In the VBN theory, NEP would influence awareness of consequences and ascription of responsibility which then activate personal norm leading to environmentally significant behaviour. Wiidegren (1998) considered NEP as awareness of consequences in the norm-activation theory to study personal norm and environmentally significant behaviour.

Personal norm has been reported to be able to predict environmentally significant behaviour (Onwezen *et al.*, 2013; Valle *et al.*, 2005; Wynveen *et al.*, 2011). Personal norm is the turning point to the adoption of environmentally significant behaviour (Vandenbergh, 2005). Perhaps, environmentally concerned individual would consider NEP sufficient to activate the obligation to perform environmentally significant behaviour (Clark *et al.*, 2003). Thus, NEP is an antecedent of environmentally significant behaviour in the VBN theory.

This paper aims to conceptualise the mediating relationship between NEP and environmentally significant behaviour. Third variable in a relationship of the generative mechanism where the independent variable is able to affect the dependent variable of interest is known as the mediator (Baron and Kenny, 1986). The mediator model of personal norm is postulated in Figure 2.

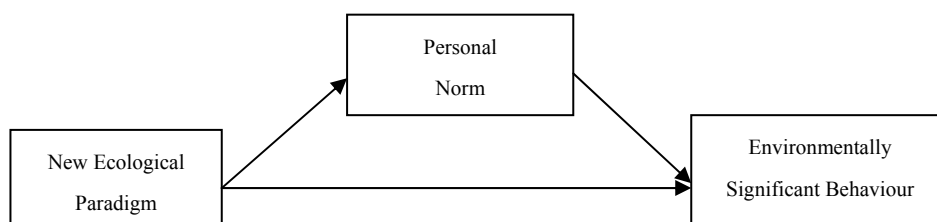


Figure 2. Mediating model of personal norm

Belief is found to have significant influence on green consumer behaviour by Mainieri *et al.* (1997). Even though NEP is considering the general belief on the environment in the VBN

theory, NEP has displayed direct relationship on environmentally significant behaviour (Chen *et al.*, 2011; Hawthorne and Alabaster, 1999). Thus, belief is shown to influence environmentally significant behaviour. Hence, NEP is expected to have direct relationship with environmentally significant behaviour.

Riley *et al.* (2001) reported that individual would respond to set of beliefs and personal norm is activated. Generalising this precept, NEP is also expected to invoke the overall notion of human relationship with nature to possess the tendency of environmentally significant behaviour (O'Connor *et al.*, 1999). In addition, relying on past studies that established the direct relationship between NEP and environmentally significant behaviour, mediating role of personal norm is hypothesized. In sum, personal norm is anticipated to influence the direct relationship of NEP and environmentally significant behaviour.

3. Conclusion and Managerial Implications

Environmentally significant behaviour research from social-psychological perspective would provide the support on the policy formulation to combat environmental issue (Gatersleben *et al.*, 2002). Personal norm plays a major role in affecting environmentally significant behaviour. In addition, belief is linked to norm in the VBN theory providing the basis of NEP relationship with personal norm. NEP is also widely found to be affecting environmentally significant behaviour. Combination of the relationships among NEP, personal norm and environmentally significant behaviour forms the mediating model of personal norm between NEP and environmentally significant behaviour.

The effect from social and psychological perspective of an individual would shape the human behaviour. Environmental problems are caused by human behaviour and could be mitigated by changing the relevant behaviour to reduce the environmental problems (Steg and Vlek, 2009). Thus, understanding factors that influence behaviour provides the necessary guidance for marketers to decide on market segmentation and product positioning. In addition, marketers can apply the knowledge on the effect of general belief and personal norm on environmentally significant behaviour for marketing communication of green products. Valle *et al.* (2005) highlighted that communication of the benefits of being environmental friendly would encourage environmentally significant behaviour. On the other hand, policy makers could formulate policies to promote environmentally significant behaviour through education and community message. More importantly, public policy should aim to increase the level of ecological worldview in order to activate the personal norm of the society to adopt environmentally significant behaviour.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <http://dx.doi.org/10.1037/0022-3514.51.6.1173>
- Bruvold, W. H. (1973). Belief and behavior as determinants of environmental attitudes. *Environment and Behavior*, 5(2), 202-218. <http://dx.doi.org/10.1177/001391657300500205>

- Carrus, G., Passafaro, P., & Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviours: the case of recycling and use of public transportation. *Journal of Environmental Psychology*, 28, 51-62. <http://dx.doi.org/10.1016/j.jenvp.2007.09.003>
- Chan, K. K. W. (1996). Environmental attitudes and behaviors of secondary school students in Hong Kong. *The Environmentalist*, 16, 297-306. <http://dx.doi.org/10.1007/BF02239656>
- Chen, X., Peterson, M. N., Hull, V., Lu, C., Lee, G. D., Hong, D., & Liu, J. (2011). Effects of attitudinal and sociodemographic factors on pro-environmental behaviour in urban China. *Conservation*, 1-8.
- Clark, C. F., Kotchen, M. J., & Moore, M. R. (2003). Internal and external influences on pro-environmental behavior: participation in a green electricity program. *Journal of Environmental Psychology*, 23, 237-246. [http://dx.doi.org/10.1016/S0272-4944\(02\)00105-6](http://dx.doi.org/10.1016/S0272-4944(02)00105-6)
- Davison, L., Littleford, C., & Ryley, T. (2014). Air travel attitudes and behaviours: the development of environment-based segments. *Journal of Air Transport Management*, 36, 13-22. <http://dx.doi.org/10.1016/j.jairtraman.2013.12.007>
- Dunlap, R. E. (2008). The New Environmental Paradigm scale: from marginality to worldwide use. *Journal of Environmental Education*, 40(1), 3-18. <http://dx.doi.org/10.3200/JOEE.40.1.3-18>
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the New Ecological Paradigm: a revised NEP scale. *Journal of Social Issues*, 56(3), 425-442. <http://dx.doi.org/10.1111/0022-4537.00176>
- Gatersleben, B., Steg, L., & Vlek, C. (2002). Measurement and determinants of environmentally significant consumer behavior. *Environment and Behavior*, 34(3), 335-362. <http://dx.doi.org/10.1177/0013916502034003004>
- Harland, P., Staats, H., & Wilke, H. A. M. (1999). Explaining proenvironmental intention and behavior by personal norms and the theory of planned behavior. *Journal of Applied Social Psychology*, 29(12), 2505-2528. <http://dx.doi.org/10.1111/j.1559-1816.1999.tb00123.x>
- Haron, S. A., Paim, L., & Yahaya, N. (2005). Towards sustainable consumption: an examination of environmental knowledge among Malaysians. *International Journal of Consumer Studies*, 29(5), 426-436. <http://dx.doi.org/10.1111/j.1470-6431.2005.00460.x>
- Hawthorne, M., & Alabaster, T. (1999). Citizen 2000: development of a model of environmental citizenship. *Global Environmental Change*, 9, 25-43. [http://dx.doi.org/10.1016/S0959-3780\(98\)00022-3](http://dx.doi.org/10.1016/S0959-3780(98)00022-3)
- Mainieri, T., Barnett, E. G., Valdero, T. R., Unipan, J. B., & Oskamp, S. (1997). Green buying: the influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), 189-204. <http://dx.doi.org/10.1080/00224549709595430>
- Nordlund, A. M., & Garvill, J. (2002). Value structures behind proenvironmental behavior. *Environment and Behavior*, 34(6), 740-756. <http://dx.doi.org/10.1177/001391602237244>

- O'Connor, R. E., Bord, R. J., & Fisher, A. (1999). Risk perceptions, general environmental beliefs, and willingness to address climate change. *Risk Analysis*, *19*(3), 461-471. <http://dx.doi.org/10.1111/j.1539-6924.1999.tb00421.x>
- Onwezen, M. C., Antonides, G., & Bartels, J. (2013). The norm activation model: an exploration of the functions of anticipated pride and guilt in pro-environmental behaviour. *Journal of Economic Psychology*, *39*, 141-153. <http://dx.doi.org/10.1016/j.joep.2013.07.005>
- Poortinga, W., Steg, L., & Vlek, C. (2004). Values, environmental concern, and environmental behavior: a study into household energy use. *Environment and Behavior*, *36*(1), 70-93. <http://dx.doi.org/10.1177/0013916503251466>
- Ramkissoon, H., Smith, L. D. G., & Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: a structural equation modelling approach. *Tourism Management*, *36*, 552-566. <http://dx.doi.org/10.1016/j.tourman.2012.09.003>
- Riley, D. M., Fischhoff, B., Small, M. J., & Fischbeck, P. (2001). Evaluating the effectiveness of risk-reduction strategies for consumer chemical products. *Risk Analysis*, *21*(2), 357-369. <http://dx.doi.org/10.1111/0272-4332.212117>
- Schwartz, S. H. (1977). Normative influences on altruism. In Berkowitz, L. (Ed.), *Advances in experimental social psychology*, *10* (pp. 221-279). New York: Academic Press.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: an integrative review and research agenda. *Journal of Environmental Psychology*, *29*, 309-317. <http://dx.doi.org/10.1016/j.jenvp.2008.10.004>
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, *56*(3), 407-424. <http://dx.doi.org/10.1111/0022-4537.00175>
- Stern, P. C., Dietz, T., Abel, T., & Guagnano, G. A. (1995). The New Ecological Paradigm in social-psychological context. *Environment and Behavior*, *27*(6), 723-743. <http://dx.doi.org/10.1177/0013916595276001>
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: the case of environmentalism. *Human Ecology Review*, *6*(2), 81-97.
- Thøgersen, J. (2006). Norms for environmentally responsible behaviour: an extended taxonomy. *Journal of Environmental Psychology*, *26*, 247-261.
- Valle, P. O. D., Rebelo, E., Reis, E., & Menezes, J. (2005). Combining behavioral theories to predict recycling involvement. *Environment and Behavior*, *37*(3), 364-396. <http://dx.doi.org/10.1177/0013916504272563>
- Vandenbergh, M. P. (2005). Order without social norms: how personal norm activation can protect the environment. *Northwestern University Law Review*, *99*(3), 1101-1166.
- Wiidegren, O. (1998). The New Environmental Paradigm and personal norms. *Environment and Behavior*, *30*(1), 75-100. <http://dx.doi.org/10.1177/0013916598301004>

Wynveen, C. J., Kyle, G. T., & Tarrant M. A. (2012). Study abroad experiences and global citizenship: fostering proenvironmental behavior. *Journal of Studies in International Education*, 16(4), 334-352. <http://dx.doi.org/10.1177/1028315311426782>

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