

Relationships among the Antecedents of Behaviour Intention towards Environmentally Friendly Restaurants: A Causal Model

Booi-Chen Tan⁺ and Peik-Foong Yeap

Multimedia University, Malaysia

Abstract. In view of the trends of sustainability and corporate social responsibility, green marketing is the major adoption in the competitive modern business today. However, very little knowledge exists about the demand for environmentally friendly practices within the food service sector, despite the numerous practices in the restaurants that contribute significantly to the depletion of environment. This paper proposes a causal model to explain the relationships between value orientations and different types of attitudes (i.e., general and specific) on behaviour intention towards environmentally friendly restaurants in Malaysia. In addition, the theoretical and practical implications are also put forward.

Keywords: Value orientations, environmentally friendly, attitudes, intention, restaurants

1. Introduction

The environmental issues such as global warming, ozone depletion, water and air pollution, loss of species, and farmland erosion have led to the current alarming environmental crisis that threaten the environment as well as human life. Human behaviour is a key source as well as the main solution to the environmental problems. As a result, the personal consumption decision is of growing interest of firms in various fields and some firms have changed their corporate culture to be more environmentally responsible and developed environmentally friendly products and services to meet the demand of environmentally conscious consumers. However, the pressure to adopt environmental friendly practices (EFP) in the food service sector is insignificant compared to the manufacturing sector in Malaysia. This disparity is evident despite of the fast growing number of restaurants and widespread habit of eating out, which bring with it an increasingly detrimental environmental impact. Restaurant which engages in EFP focuses on three Rs (reduce, reuse, recycle) and two Es (energy and efficiency) [1], and such practices aim to improve the ecological performance, reduce operational costs, and enhance the restaurant image. Currently, it appears to be very limited research on the demand for EFP within the food service sector from the consumer perspectives in Malaysia.

Therefore, this paper reviews the past conceptual and empirical literatures to propose a causal model to explain the relationships among the antecedents that can predict and better explain the behaviour intentions of consumers to visit and pay more for the food and services in environmentally friendly restaurants (EFR). In addition, the theoretical and practical implications are also put forward.

2. Literature Review

2.1. Theoretical Underpinnings

Theory of Reasoned Action (TRA), Value-Attitude-Behaviour Model (VAB), Schwartz's Norm Activation Model (NAM), Value-Belief-Norm Theory of Environmentalism (VBN), and Schwartz's Theory of Values provide theoretical underpinnings and help to explain the relationships among the antecedents of behaviour intention towards EFR in this paper. TRA [2] discusses the attitude-behaviour relationship and

⁺ Corresponding author. Tel.: +603-83125721; fax: +603-83125590
E-mail address: bctan@mmu.edu.my

warns against the use of general attitudes to predict specific behaviour as a specific attitude is better than general attitude in predicting a specific behaviour. The exist of attitude-behaviour has been commented due to lack of specificity of the attitudinal measures used in the research [3]. Moreover, general attitude is a cause of specific attitude which, in turn, has direct influence on specific behaviour. Both types of attitudes (general and specific) should be studied together in an empirical research, rather than isolating them [4].

Values are the enduring beliefs that motivate one to take actions in order to achieve the desirable outcomes. VAB [5] model implies that the influence begins from abstract values to mid-range attitudes to specific behaviours. As a result, values influence attitudes, and attitudes in turn influence behaviour, thus confirmed the mediating effect of attitudes between values and behaviour has been reported in the context of natural food shopping behaviour [5]. However, the results of direct and indirect effects of values on environmental behaviour through the intervening variables are still far from conclusive [6, 7, 8].

According to NAM [9], personal norms which are “feelings of moral obligation to perform or refrain from specific actions” [9, p.191] lead to prosocial behaviour. When one beliefs that not behaving environmentally friendly will lead to negative consequences for others or the environment and feels responsible for these negative consequences, his or her personal norms are activated to act in environmentally friendly way. However, value orientations of an individual and which types of values are able to predict prosocial behaviour were not shown in this model. As a result, it leads to the extension of NAM to VBN [10], which begins from three aspects of value orientations (egoistic, altruistic, biospheric values) to specific environmental beliefs, personal norm and proenvironmental behaviour in a causal chain. VBN has been tested in numerous environmental behavioural studies [11, 12], however, the issues of measurement and dimensionality of value orientations are still being debated [11, 12, 13, 14, 15, 16].

Past studies focusing values in environmental research were based on Schwartz’s value theory [17]. Value can be defined as “a desirable transsituational goal varying in importance, which serves as a guiding principle in the life of a person or other social entity” [17, p.21]. Schwartz grouped the values into four dimensions (self-enhancement, self-transcendence, openness to change, and conservation values). Self-enhancement values (SE) emphasise on the pursuit of self-interest such as power and achievement values, and Self-transcendence (ST) values emphasise on the welfare and interests of others such as universalism and benevolence values. Besides, openness to change values emphasise on independent action, thought and feeling, and readiness for new experience which consist of self-direction, hedonism and stimulation values, and conversely, conservation values emphasize on self-restriction, order and resistance to change that include the values of security, conformity and tradition.

Initially, 56 items of value instrument was used in the surveys but it has been commented as being too long and time consuming [16, 18]. Thus, a short version of 12 value items which consists of egoistic, altruistic, and biospheric values derived from Schwartz’s Theory of Values (ST and SE values) had been developed and tested to explain pro-environmental belief and behaviour intention [11, 12, 13, 16]. Egoistic value concerns for self, altruistic value concerns for others and the biospheric value cares for non-human elements. However, some of the researches failed to identify an independent distinction between altruistic and a biospheric value orientation (ST values), and concluded that both values could not be distinguished to explain environmental beliefs and behaviour [14, 15]. Future research should validate the value instrument and examine the distinction of both values and further investigate its impacts on environmental beliefs and behaviour [12, 13].

2.2. Attitude towards Environment (EA)

Milfont [8, p.12] defined EA 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”. Some of the environmental sociologists have referred the attitudes towards natural environment as “environmental concern” and used the terms interchangeably [19]. Numerous environmental studies have made attempts to determine the causes and the effects of EA. The direct relationships between values and EA, and between values and environmental behaviour have been reported [6, 7, 8, 12, 13]. However, the direct relationship between values and environmental behaviour is weak [13] and not apparent in instances when the mediating constructs are not explored [7].

Past studies using EA as a direct determinant of environmental behaviour had produced inconclusive results. EA had been reported positively related to pro-environmental intention and behaviour [7, 21] as well as affecting the specific green purchase behaviour [21, 22, 23]. However, Hines et al., [24] indicated that lower attitude-behaviour correlation was found when attitude was measured as a general EA compared to when attitude was measured as an attitude towards specific environmental behaviour. Furthermore, the attitude-behaviour gap exists as the environmentally concerned consumers do not purchase green products [25]. Specifically, Butler and Francis [26] distinguished the general EA from specific clothing environmental attitude and reported a significant relationship between these two variables and their effects on clothing purchase behaviour in a hierarchy format. The direct relationship between EA and specific environmental behaviour is weak due to the incorrect assumption that general EA is direct determinant of specific behaviour [27]. Bamberg [27] argued that only situation-specific cognitions are direct determinants of specific behaviours, future research should not view the EA as a direct predictor, while it should be viewed as an indirect determinant of specific environmental behaviour.

2.3. Attitudes towards Green Behaviour and Attitudes towards EFP Restaurants

Attitude towards green behaviour consists of perceived importance, inconvenience of environmental consequences, the severity of environmental problems, and the level of responsibility of corporations [28]. Some researchers have investigated the effects of attitude towards the “importance of recycling” and “inconvenience of recycling” on the recycling behaviour [29]. In the context of food service sector, the responsibilities of the restaurants with reference to the reduction of solid waste, water consumption, energy consumption, and air pollution appeared to be a relatively new phenomenon. Nevertheless, a significant portion of environmental factors could be minimised through sound environmental management practices in the restaurants. For examples, the practices of using biodegradable products, saving energy and natural resources actively, purchasing energy saving equipment, reducing and recycling waste, and engaging in environmental protection programmes in operating a restaurant are able to reduce many environmental problems [30]. However, how Malaysian consumers feel and view these practices are still unknown across the market. Therefore, Green Restaurant Association (www.dinegreen.com) in the United States provides seven environmental guidelines to help each restaurant improve its environmental practices and become a Certified Green Restaurant. Those practices are such as:

- (a) energy efficiency and conservation,
- (b) water conservation and efficiency,
- (c) recycling and compositing,
- (d) purchasing sustainable, local, and organic foods,
- (e) pollution prevention,
- (f) use of non-toxic and chemical products, and
- (g) sustainable furnishings and building materials.

2.4. Behaviour Intention

Behaviour intention can be defined as an affirmed likelihood to engage in a specific behaviour [31]. In the absence of measuring the actual behaviour, Zeithaml et al. [32] view behaviour intention as an indicator that predicts whether consumers will remain with or defect from the company. The practice of green purchase in the manufacturing and service sectors is still new in the market, most of the studies are therefore only based on the intention to purchase rather than re-purchase intention to predict the actual behaviour [33, 34]. Inevitably, the price of green products or green services is premium. As such, willingness to pay is the popular variable in the measurement of behaviour intention in most of the pro-environmental purchase related studies [28, 35].

In the context of hospitality sector, Han et al. [36] reported that attitude towards green behaviour was a significant predictor on the overall image of green hotels. The findings revealed that the formation of intention to visit green hotel flows from attitudes towards green behaviour to overall image of green hotels. Subsequently, in the same context, Han et al. [37] had confirmed that the importance of being environmentally friendly had a greater impact on intentions to visit and to spread positive word-of-mouth. Recently, Hu et al. [38] discussed the relationships between consumers’ knowledge of restaurant’s EFP,

environmental concern, and pro-environmental behaviour and their intention to visit EFR. The relationships between consumers' knowledge, environmental concern and intention to visit EFR were found significant. The researchers also indicated that future research on the consumers' intention to visit EFR should be conducted in other countries due to the differences in values and cultures, in spite of limited empirical evidences.

More specifically, Schubert [30] and Szuchnicki [35] had explored the consumer attitudes towards various areas of EFP in restaurants such as reducing the energy and waste and serving locally or organically grown food. Schubert [30] reported the respective univariate results on the attitude and willingness to pay for EFR, but the bivariate relationship between these two variables had not been addressed. Moreover, a significant relationship between EFP in the restaurant and return intention as well as EFP in a certified EFR and return intention had been found [35]. Nevertheless, studies focused on the formation of intentions to visit and pay more with reference to the implementation of EFP in the restaurants are still lacking.

Thus, four research questions (RQs) are subsequently raised for future research based on the theoretical and empirical literatures discussed above. RQ1: What are the prominent antecedents that influence behaviour intentions of consumers to visit and pay more for the food and services in EFR? RQ2: How do value orientations relate to attitudinal variables explain behavior intention? RQ3: Does the attitude towards EFP of restaurants mediate the relationship between attitude towards green behaviour and behaviour intention? RQ4: Do value orientations and attitudinal variables have interaction effect on behaviour intention in the structure model? A causal model is proposed and presented in Figure1 to explain the causal relationships among the antecedents that may predict and better explain the behaviour intention among Malaysian consumers in the context of EFR.

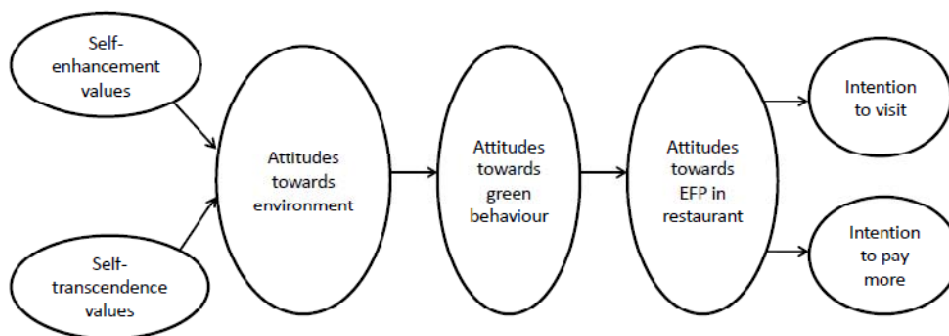


Figure1 : A Causal Model of Behaviour Intention towards EFR.

3. Theoretical Implications

A few theoretical implications are expected to be drawn. Firstly, it examines the value orientation of consumers in Malaysia and how these orientations influence the formation of attitudes and behaviour intention in the context of EFR. People who care more on the welfare and interests of others (ST values) are believed to be more concerned about the environmental issues than those who place high priority on their self interest (SE values). Besides, the dimensionality of value orientations of Malaysian consumers can be confirmed through the confirmatory factor analysis. Secondly, the combination of attitudinal variables (general and specific) as outlined in this paper to predict a specific type of pro-environmental intention is still limited within the context of EFR practices. The findings are expected to confirm which is the most appropriate attitude predictor on behaviour intention, as to close the attitude-behaviour gap. Thirdly, with regards to the intervening variables between the relationship of values and behaviour intention, this paper introduces three attitudinal variables that are potentially mediating the relationship. Lastly, a causal chain of mediating model that integrate various antecedents of behaviour intention in restaurant sector enriches the future environmental literatures.

4. Practical Implications

The joint cooperations among policy makers, business players, and customers are the major factors in fostering the success of environmental protection. Green restaurant certificates aligned with the

environmental guidelines can be awarded to those restaurants that meet the requirements of sustainable practices in operating the restaurants. Ideally, incentives schemes or subsidies, and various environmental programmes should be organised to encourage the adoption of EFP within the food service sector. Besides, the consumer attitudes towards various aspects of EFP in restaurants are new and challenging to be explored for future restaurant strategy formulation. Restaurants who are early entrants to the green market stands to gain greater competitive advantage as they establish themselves in the public's mind as pioneers in the pro-environment cause. A large number of customers show increased favorable attitude towards the green firms indicating their intention to purchase and pay more for environmentally friendly products or services [28, 36, 37]. As a result, more efforts can be made to communicate EFR practices to the public to promote the patronage of EFR and encourage more active participation for green consumption. By educating and enhancing people's attitudes, EFR can leverage themselves to a competitive position in the niche segment, and gain a greener and more socially responsible corporate image. In addition, demand for the tangible aspect of service products directly encourages the production and supply of green products from the manufacturing sector, and providing the economic values to the farmers to produce sustainable food, recycle the agricultural wastes and reproduce them into usable products such as tableware items.

More importantly, excellent food and service quality, pleasant ambience conditions plus the EFP at the restaurant provides a distinct dining experience especially to those restaurant patrons who are environmentally conscious. Lastly, a "win-win" situation among all the parties would generate more sustainable and responsible consumption behaviour among the society and produces a healthier environment.

5. Conclusion

The fast growing numbers of restaurants and widespread eating-out habits in Malaysia, effectively result in a significant aggravation on the environment. There is a high need for both academic and marketing researchers to focus their studies in the domain of environmental sound practices in restaurants. Therefore, this paper has proposed a causal model to examine the relationship among the antecedents of behaviour intention of consumers towards the EFR. The findings are expected to contribute to the benefits of different parties from different perspectives, while protecting the environment.

6. References

- [1] A. Gilg, S. Barr, and N. Ford. Green consumption or sustainable lifestyles? Identifying the sustainable customer. *Futures*. 2005, **37**: 481.
- [2] M. Fishbein, and I. Ajzen. *Belief, Attitude, Intentions, and Behaviour: An Introduction of Theory and Research*. Reading, MA: Addison-Wesley, 1975.
- [3] R.H. Weigel, and L.S. Newman. Increasing attitude-behaviour correspondence by broadening the scope of the behavioural measure. *Journal of Personality and Social Psychology*. 1976, **33**(6): 793–802.
- [4] J. Sun, and V.L. Wilson. Assessing general and specific attitudes in human learning behaviour: An activity perspective and a multilevel modeling approach. *Educational and Psychological Measurement*. 2008, **66**: 245-261.
- [5] P.M. Homer, and L.R. Kahle. A structural equation test of the value-attitude-behaviour hierarchy. *Journal of Personality and Social Psychology*. 1988, **54**: 638-646.
- [6] D.G. Karp. Values and their effect on pro-environmental behavior. *Environment and Behaviour*. 1996, **28**: 111-133.
- [7] Y. Kim. The impact of personal value structures on consumer proenvironmental attitudes, behaviours and consumerism: A cross-cultural study. Doctoral Dissertation, College of Communication Arts and Sciences, Michigan State University. 2002.
- [8] T.L. Milfont. Psychology of environmental attitudes: A cross-cultural study of their content and structure. Unpublished doctoral dissertation, University of Auckland, Auckland, New Zealand. 2007.
- [9] S.H. Schwartz, and J.A. Howard. A normative decision making model of altruism. 1981. In J. P. Rushton, and R. M. Sorrentino (Eds.), *Altruism and helping behavior: Social, personality, and developmental perspectives*, 189-211. Hillsdale, NJ: Erlbaum.
- [10] P.C. Stern, T. Dietz, T. Abel, G. Guagnano, L. Kalof. A value-belief-norm theory of support for social movements:

The case of environmental concern. *Human Ecology Review*. 1999, **6**: 81–97.

- [11] T. Garling, S. Fuji, A. Garling, and C. Jakobsson. Moderating effects of social value orientation on determinants of proenvironmental behavior intention. *Journal of Environmental Psychology*. 2003, **23**: 1–9.
- [12] L. Steg, L. Dreijerink, W. Abrahamse. Factors influencing the acceptability of energy policies: A test of VBN Theory. *Journal of Environmental Psychology*. 2005, **25**: 415-425.
- [13] J.I.M. De Groot, and L. Steg. Value orientations to explain beliefs related to environmental significant behaviour: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and Behaviour*. 2008, **40**(3), 330-354.
- [14] A.M. Nordlund, and J. Garvill. Value structures behind proenvironmental behaviour. *Environmental and behavior*. 2002, **34**: 740-755.
- [15] P.C. Stern, and T. Dietz. The value basis of environmental concern. *Journal of Social Issues*. 1994, **50**: 65-84.
- [16] P.C. Stern, T. Dietz, and G.A. Guagnano. A brief inventory of values. *Educational and Psychological Measurement*. 1998, **58**: 984-1001.
- [17] S.H., Schwartz. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*. 1992, **25**: 1-65.
- [18] M. Lindeman, and M. Verkasalo. Measuring values with the short Schwartz's value Survey. *Journal of Personality Assessment*. 2005, **85**: 170-178.
- [19] R.E. Dunlap, and R.E. Jones. Environmental concern: conceptual and measurement issues. 2002. In: R.E. Dunlap and W. Michelson, Editors, *Handbook of Environmental Sociology*, Greenwood Press, Westport, CT, pp. 482–524.
- [20] Y. Kim, and S.M. Choi. Antecedents of proenvironmental behaviours: An examination of cultural values, self-efficacy, and environmental attitudes. *International Communication Association*. 2003.
- [21] Y. Kim, and S.M. Choi. Antecedents of green purchase behaviour: An examination of collectivism, environmental concern and PCE. *Advances in Consumer Research*. 2005, **32**: 592-59
- [22] I. Tilikidou, I. The effects of knowledge and attitudes upon Greeks' pro-environmental purchasing behaviour. *Corporate Social Responsibility and Environmental Management*. 2007, **14**: 121-134.
- [23] S.C. Grunert, and H.J. Juhl. Values, environmental attitudes, and buying of organic foods. *Journal of Economic Psychology*. 1995, **16**: 39-62.
- [24] J.M. Hines, H.R. Hungerford, and A.N. Tomera. Analysis and synthesis of research on responsible environmental behaviour: A meta-analysis. *Journal of Environmental Education*. 1987, **18**: 1-8.
- [25] T. Mainieri, E. Barnett, T. Valdero, J. Unipan, and S. Oskamp, S. Green buying: The influence of environmental concern on consumer behaviour. *Journal of Social Psychology*. 1997, **137**(2), 189-204.
- [26] S.M. Butler, and S. Francis. The effects of environmental attitudes on apparel purchasing behaviour. *Clothing and Textiles Research Journal*. 1997, **15**: 76-85.
- [27] S. Bamberg. How does environmental concern influence specific environmentally related behaviours? A new answer to an old question. *Journal of Environmental Psychology*. 2003, **23**: 21-32.
- [28] M. Laroche, J. Bergero, and G. Barbarot-Forleo. Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Market*. 2001, **18**: 503-520.
- [29] J.A. McCarty, and L.J. Shrum. The recycling of solid wastes: Personal and cultural values and attitudes about recycling as antecedents of recycling behaviour. *Journal of Business Research*. 1994, **30**: 53-62.
- [30] F. Schubert. Exploring and predicting consumers' attitudes and behaviours towards green restaurants. The Degree Master's of Science in the Graduate School of The Ohio State University. 2008.
- [31] R.L. Oliver. Satisfaction: A behavioral perspective on the consumer. Boston: McGraw-Hill, 1997.
- [32] V.A. Zeithaml, L.L. Berry, and A. Parasuraman, A. The behavioural consequences of service quality. *Journal of Marketing*. 1996, **60**: 31-46.
- [33] Y.K. Chan. Determinants of Chinese consumers' green purchase behaviour. *Psychology & Marketing*. 2001, **18** (4), 389-413.

- [34] A. Tarkiainen, and S. Sundqvist, S. Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*. 2005, **107**: 808-822.
- [35] A.L. Szuchnicki. Examining the influence of restaurant green practices on customer return intention. Master of Science in Hotel Administration, William F.Harrah College of H.A, University of Nevada, Las Vegas. 2009.
- [36] H. Han, L.T. Hsu, and J.S. Lee. Empirical investigation of the roles of attitudes towards green behaviours, overall image, gender, and age in hotel customers' eco friendly decision making process. *International Journal of Hospitality Management*. 2009, **28**: 519-528
- [37] H. Han, L.T.Hsu, J.S. Lee, and C. Sheu. Are lodging customers ready to go green? An examination of attitudes demographics, and eco-friendly intentions. *International Journal of Hospitality Management*. 2010.
- [38] H.H. Hu, H.G. Parsa, and J. Self. The dynamics of Green Restaurant Patronage. *Cornell Hospitality Quarterly*. 2010, **51**(3): 344-362.