

Contextual Aspects and Environmentally Ethical Behaviour: A Review

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ABSTRACT

A comprehensive review of literature indicates varying hypotheses of the relationship between contextual aspects (i.e., social, economic, and political) and environmentally ethical behaviour (EEB) (i.e., pre-cycling, re-use and recycling). This article divides the discussion into four thematic categories (i.e., social intrinsic aspect, social extrinsic aspect, economic aspect, and political aspect). In each of the categories this article provides a comprehensive review of the research findings. From the literature reviewed, it can be said that a study on the relationship between social intrinsic aspect and EEB is a study about environmental attitude in relation to environmental behaviour. Findings of the studies on such relationship are inconsistent; some found a positive relationship and some show a weak or no relationship. However, most of the studies found that general environmental concern were not strongly related to a specific EEB whereas specific environmental attitudes and/or beliefs (e.g., locus of control), and personal psychological features (e.g., social conscience) linked positively to EEB. Meanwhile, some elements of social extrinsic aspect (e.g., social pressure from neighbours) were found to relate strongly (directly or indirectly) to EEB. Others (e.g., personal convenience) were found to either have no relationship or have a negative relationship to EEB. On the relationship between economic aspect and EEB, some studies found financial incentives correlate positively to EEB, but others found that such incentives were not effective in the long run. Some elements of economic aspect (e.g., price) linked negatively to EEB while product attributes linked positively. As for political aspect and its relation to EEB, variables such as laws and regulations had a weak relation with EEB, but environmental NGOs had a strong relation with EEB.

ABSTRAK

Satu semakan menyeluruh terhadap kajian-kajian lepas menunjukkan pelbagai hipotesis tentang hubungan antara tingkah laku beretika alam sekitar (pra-kitar, guna semula dan kitar semula) dan aspek-aspek kontekstual (sosial, ekonomi dan politik). Artikel ini membahagikan perbincangan kepada empat kategori tema iaitu aspek sosial intrinsik, aspek sosial ekstrinsik, aspek ekonomi dan

aspek politik. Artikel ini menyediakan satu ulasan menyeluruh tentang penemuan-penemuan kajian bagi setiap kategori tersebut. Berdasarkan kajian-kajian lepas yang disemak, boleh dirumuskan bahawa kajian terhadap hubungan antara aspek sosial intrinsik dan EEB ialah kajian tentang sikap alam sekitar dalam hubungannya dengan tingkah laku alam sekitar. Penemuan-penemuan daripada kajian-kajian tersebut tidak konsisten; sesetengahnya menemui hubungan yang positif dan sesetengahnya pula menemui hubungan yang lemah atau tiada hubungan langsung. Namun, kebanyakan kajian menemui bahawa keperihatinan alam sekitar secara umum tidak berhubung kuat dengan EEB yang spesifik manakala sikap alam sekitar yang spesifik (contohnya, kawalan diri) dan ciri-ciri psikologi peribadi (contohnya, kesedaran sosial) berhubung secara positif dengan EEB. Sementara itu, sesetengah elemen aspek sosial ekstrinsik (contohnya, tekanan sosial daripada jiran) berhubung kuat (secara langsung atau tidak langsung) dengan EEB. Elemen-elemen yang lain (contohnya, rasa mudah) didapati sama ada tidak ada hubungan langsung dengan EEB ataupun mempunyai hubungan yang negatif. Bagi hubungan antara aspek ekonomi dan EEB, sesetengah kajian mendapati bahawa insentif kewangan berkorelasi secara positif dengan EEB tetapi sesetengah kajian yang lain mendapati insentif tersebut tidak berkesan dalam jangkamasa panjang. Sesetengah elemen aspek ekonomi (contohnya, harga) berhubung secara negatif dengan EEB sementara ciri-ciri produks berhubung secara positif. Hubungan antara aspek politik dan EEB menunjukkan pembolehubah-pembolehubah seperti undang-undang dan peraturan-peraturan mempunyai hubungan yang lemah dengan EEB tetapi pertumbuhan-pertumbuhan alam sekitar bukan kerajaan mempunyai hubungan yang kuat dengan EEB.

INTRODUCTION

Researchers have consistently noted several aspects that drive people to adopt environmentally ethical behaviour (EEB) (Buttel 1987). According to Mainieri et al. (1997) "Behaviour is a function of both personal and situational characteristics" (p. 192). Thus, EEB can be influenced by either one or both characteristics. For the purpose of discussion in this article studies on personal characteristics are discussed under the social intrinsic aspect category and studies on situational aspects are discussed under the categories of social extrinsic aspect, economic aspect, and political aspect. In each of these categories the discussion is on research findings.

SOCIAL INTRINSIC ASPECT

Oom Do Valle et al. (2005), based on their study using a combined theory of planned behaviour and model of altruistic behaviour with elements from the model of environmental behaviour and the model of environmental concern, proposed a comprehensive structural equation model to explain recycling behaviour. Generally, the results of their study support the use of the theory of planned behaviour as a basis for modelling recycling participation. The authors found that recycling behaviour is indirectly determined by personal psychological features, such as social conscience, but not by general ecological attitudes. The authors also found that the individual perceived behaviour control (such as those who are aware of their own individual contribution) has a positive influence on recycling behaviour. However, the authors also found that attitudes towards recycling and recycling participation, although statistically significant, were not positive.

Thogersen (2000) studied the influence of moral concerns (i.e., environmental concerns) on consumer buying or pre-cycling decisions with environmental implications. The author proposed that two conditions make moral reasoning in the buying situation more likely: environmental concern and the absence of other highly involving characteristics such as a high price. Thogersen (2000) claimed, "The study confirms that when these conditions are met... environment-friendly buying behaviour is based on moral reasoning" (p. 451). The study shows that even when the economic aspect (such as the perceived price of goods with environmentally friendly packaging) are small and moral norms (such as environmental concerns) are active, economic considerations still influence buying or pre-cycling decisions, at least for some consumers. In addition, Hess (1998) asserted that pricing (economic motivation) and environmental ethics (social intrinsic motivation) complement each other and "do not jeopardize each other in the context of environmental policy" (p. 214). Hess (1998) believed that "moral suasion alone will normally not have a dramatic effect on individuals' behaviour... probably not affect believers and non-believers symmetrically" (p. 214). Thogersen (2000) also found that the personal norms to pre-cycle (such as avoiding packaging waste) depend on the individual's awareness regarding packaging waste and on his/her beliefs about his/her ability to contribute to solving the waste problem.

Mainieri et al. (1997) studied the relation between pre-cycling and aspects (in particular environmental concern) that influence pre-cycling. The authors found that although respondents expressed their general

concern toward the environment, they did not display their concern in their purchasing behaviour. However, the authors found that respondents' specific attitudes about environmental consumerism were related to their reported number of purchases of environmentally friendly products and to their general environmental purchasing behaviour. The specific consumer belief, as oppose to general concern about the environment, emerged as a significant predictor of environmental consumerism. The stronger the pro-environment belief in the consumers the more likely it is for them to engage in pre-cycling behaviour.

An extensive review of studies on environmental attitudes and recycling behaviour done by Shrum et al. (1994) suggests that general environmental attitudes are not related to any particular environmental behaviour. The studies reviewed suggest that trait or personality variables such as an internal locus of control are correlated positively with post-purchase behaviours such as recycling. The authors' review of the literature also found that previous studies suggest that environmental attitudes correlate with behaviours, but the correlation is stronger when the attitudes are related to specific environmental behaviour, for example, attitudes towards recycling strongly correlate with recycling behaviour. The authors noted that the influence of values on behaviour is indirect, mediated by beliefs about recycling. Wall (1995) like the previous researchers (for instance, those whose works were reviewed by Shrum et al. 1994) found that general environmental concerns have a weak positive effect on recycling and attempts to pre-cycle, suggesting that general environmental attitudes have a limited influence on environmental behaviour. Shrum et al. (1994) also noted that previous studies found that inconvenience is a very powerful motivator to avoid recycling.

Ellen et al. (1991) studied the relationship between perceived consumer effectiveness (PCE) and environmental behaviour to identify the types of behaviours that are and are not influenced by PCE. The author used social dilemma theory to predict how PCE will influence these types of behaviour, because the problem of saving the environment is a social dilemma "(i.e., a situation where the collective good can be achieved if almost all community members sacrifice)" (Ellen et al. 1991: 105). This theory predicts that the degree to which the individual feels his/her efforts make a difference affects his/her performance of individually oriented activities such as recycling. The authors found that

PCE¹, the degree to which an individual can make a difference in the quality of the environment², was related positively to intent to purchase environmentally safe products.

Shrum et al. (1995) studied the relationship between psychographic profile (using attitudinal and trait variables) of consumers and their purchasing or pre-cycling behaviour. Shrum et al. (1995) found that consumers' perception of themselves as opinion leaders led them to actively exchange product information through word-of-mouth communications with others. This activity strongly influences consumers on whether or not to buy green (pre-cycle).

Schwepker & Cornwell (1991) found several attitudes toward the environment (i.e., ecologically conscious living, and litter), locus of control and perceptions of pollution to be significant predictors of environmental purchasing behaviour (pre-cycling). The authors found that purchase intention on behaviour suggest that an internal locus of control is correlated positively with intent to purchase ecologically packaged products. The authors also found that individuals with an internal locus of control who were concerned with litter and believed that pollution was a problem, and who had a favourable attitude toward environmentally conscious living were more likely to intend to buy environmentally packaged consumer goods.

Huebner & Lipsey (1981) studied the role of locus-of-control variables in explaining ecologically responsible behaviour. The authors (1981) said:

“There may be some doubt whether locus of control is best viewed as a personality trait or as an attitude, but in either event, the findings of the present study are consistent with findings in both those domains – the relationship of locus of control to specific target behaviours is considerably stronger when it is measured in situation specific-terms than when it is measured more broadly” (p.56).

¹ Perceived consumer effectiveness (PCE) is related to the concept of perceived behavioural control (PCB), which has been studied by theorists in the areas of learned helplessness, locus of control, and perceived control (Ellen et al. 1991).

² A domain-specific construct related to locus of control (Ellen et al. 1991).

The authors found that locus of control was significantly associated with environmentally responsible activities and personal conservation attitudes.

Larsen (1995), and Schwartz & Miller (1991) suggested that altruism is one of the forces behind recycling behaviour. Larsen (1995) claimed that people engage in environmentally responsible or ethical behaviour because of their concerns about social altruism or society in general, thus, the behaviours are perceived as contributing to the welfare of the community to which they belong.

Ebreo et al. (1999) examined the relation between respondents' beliefs about environmentally responsible consumerism and environmental attitudes, motives, and self-reported recycling behaviour. The authors found that respondents with higher concern for the environment also have higher ratings of the importance of conservation-related and kind-to-nature product attributes, and claimed to confirm the earlier studies on the relation between general environmental concern and attitudes toward recycling. The authors also found that the respondents' belief in positive consequences of recycling relate positively to their recycling behaviours. The results also suggest that participants are more likely to act in an environmentally responsible manner if they are concerned for the environment and concerned about the environmental norms of their community. The authors also found that people recycle because it gave them satisfaction.

De Young (1986) also found that respondents' recycling and re-using behaviour are positively associated with the satisfactions they gain from being frugal and from participating in conservation activities. Oskamp et al. (1991) investigated aspects encouraging or deterring recycling. The authors claimed that among the most useful predictors of recycling are degree of intrinsic satisfaction associated with the behaviour, and sense of personal efficacy – some authors refer to it as internal locus of control.

Most of the studies in the social intrinsic aspect (or intrinsic motive) category used psychographic characteristics of consumers such as attitudes and beliefs, and psychological features such as personal values and trait variables to explain environmental concern or environmental behaviour (Shrum et al. 1994). Many studies focused on the relationship between environmental attitudes and actual environmental behaviours (Shrum et al. 1994). The results are inconsistent. Some studies show a positive relationship and some show a weak or no relationship (Mainieri et al. 1997).

According to Dunlap (1991) people are concerned about not only the quality of life but life itself, for human and other species. Thus, the diversity and intensity of environmental problems, as experienced by the public, are themselves proposed as an explanation for the widespread nature of environmental concern. The fact that environmental concerns are so widespread has led many researchers (including Mainieri et al. 1997; Oom Do Valle et al. 2005; Thøgersen 2000) to use an environmental concern model to explain environmentally ethical behaviour (EEB). Most of the studies found that general environmental concerns are not strongly related to a specific EEB. However, specific environmental attitudes and/or beliefs such as environmental attitudes and beliefs towards pre-cycling, recycling, and consumerism, perceived behaviour control, perceived consumer effectiveness, internal locus of control and social altruism linked positively to EEB (Ebreo et al. 1999; Ellen et al. 1991; Larsen 1995; Mainieri et al. 1997; Oom Do Valle et al. 2005; Schwartz & Miller 1991; Schwepker & Cornwell 1991; Shrum et al. 1994). Personal psychological features such as social conscience, personal norms and satisfaction also contribute positively to EEB (De Young 1986; Huebner & Lipsey 1981; Oom Do Valle et al. 2005; Oskamp et al. 1991; Shrum et al. 1995; Thøgersen 2000).

SOCIAL EXTRINSIC ASPECT

Although the study by Oom Do Valle et al. (2005) used attitude-behaviour theories (that tend to examine intrinsic social motives in relation to environmental behaviour) the authors also found that higher standards of recycling involvement relate to household members possessing stronger subjective norms (or social extrinsic motives), that is, those who were more influenced by social pressure. This result underlines the importance of subjective norms in explaining recycling behaviour. According to the authors, subjective norms act directly to influence recycling behaviour as well as indirectly (internalized by the individual, thus becoming personal norms) to influence such behaviour. The authors found that subjective norms or social extrinsic motives have a positive influence on personal norms. This finding supports Schwartz's (1977) model of altruistic behaviour but other elements of Schwartz's model were only partially achieved, for example, while Schwartz's model claims that subjective norms or social extrinsic motives do not have a direct influence on behaviour but rather an indirect effect through personal norms the result of the study showed that subjective norms or social extrinsic motives do have a direct impact on behaviour.

Larsen (1995) and Thøgersen (2000) found that the elements of the social extrinsic aspect such as social pressure could influence the decision to engage in environmentally responsible or ethical behaviour such as recycling and pre-cycling behaviour. According to Thøgersen (2000), the increase in social pressure can increase (compliance) or decrease (defiance) pre-cycling behaviour (such as avoiding packaging waste). According to Thøgersen (2000) "Research on intrinsic social motivation indicates that when behaviour is motivated by extrinsic social pressure there is often a small step from compliance to defiance" (p. 449). Larsen (1995) claimed that individuals perform environmentally responsible or ethical behaviour because the behaviours are expected of them as members of their community.

Dunlap (1991) reported that a survey by Environment Opinion Study found that when people decided whether or not to take environmental actions there were many contextual aspects involved in their decision, such as information availability, convenience, and community.

Ebreo et al. (1999) found that social influence was not strongly related to environmentally responsible behaviour. However, the study showed respondents' motive to recycle due to the influence of one's family and friends was to some extent related to re-using and recycling behaviours.

Wall (1995), using secondary data, studied both recycling and consumers' intended purchasing (pre-cycling) behaviour. The author studied selected perceptual, situational and structural influences on environmental lifestyle choices to understand the barriers to public behavioural commitment to the environment in particular recycling, and consumer attempts to purchase organically grown foods. The author also studied the relationship between attitude and behaviour. Wall (1995) found that people are more likely to act when a recycling programme existed in their areas such as curb-side recycling programme because they believe that others are likely to cooperate and because the benefits to be gained from recycling, such as personal satisfaction and social approval, outweigh the costs when convenience is increased. Wall (1995) concluded that:

"levels of the environmental behaviours examined here [in the study] will remain low, regardless of concern, unless an environmental issue is linked to immediate personal concerns, or societal arrangements exist that help to reduce the costs of compliance and facilitate cooperative action" (p. 465).

Oskamp et al. (1991) claimed that the most useful predictors of recycling are contextual aspects such as convenience of behaviour, knowledge of environmental issues, family composition and neighbour's expectations. The authors found that friends and neighbours who recycle influence recycling behaviour of respondents, thus suggesting that social influence could be used effectively as a stimulus to promote recycling behaviour. The authors also found that general pro-environmental attitudes do not predict curb side recycling behaviour, but attitudes specific to recycling do.

Hess (1998) re-interpreted the 'social customs' approach, which was developed in the context of labour market, and used the approach to examine whether it is an adequate framework for explaining recycling behaviour of households. Hess (1998) tried to explain why each individual contributes (in terms of recycling behaviour) to the provision of a public good (i.e., the environment) and thus offers a partial escape from the free-rider³ problem. According to the author (1998):

"In the real life of industrialized countries, public concern and social norms affect individuals' behaviour towards the environment – in addition to purely economic thinking... it is worth the effort to integrate non-economic motives such as the need to conform with others into the world of economics" (p. 204).

Ebreo et al. (1999) found that personal inconvenience did not relate to whether or not respondents would perform environmentally responsible behaviour. The authors found practicality (such as logistic items) was also not related to whether or not respondents would act in an environmentally responsible manner. However, Vining & Ebreo (1990) who studied the difference in knowledge, motives, and demography and their relation to recycling behaviour found that personal inconvenience and the practical logistics of engaging in environmentally responsible behaviour can be important deterrents to recycling behaviour.

Oom Do Valle et al. (2005) found that communication strategies such as television, advertising etc do not positively influence perceived behaviour control, thus, were assumed to have indirectly failed to

³ A free-rider is someone who enjoys the benefits that others bring in without having to do the work or contribute a fair share of the costs (Hardin 2003).

influence behaviour.⁴ The authors attribute the failure of such communication strategies (in positively influencing recycling behaviour) to aggressive and offensive television advertisements that resulted in defiant behaviour among consumers. Shrum et al. (1995) also found that media, especially magazines, rather than television influence consumer decisions on whether or not to buy green (pre-cycle). Wall (1995) found that media exposure has statistically significant effects on environmental attitudes. Higher media exposure on environmental programmes results in greater environmental concern but does not directly affect recycling behaviour. However, Vining & Ebreo (1990) found that publicity and knowledge about recycling positively correlated with recycling behaviour.

Other findings are by Ebreo et al. (1999) who found that respondents believe that shopping in an environmentally responsible manner is important in terms of conserving resources, but not necessarily important in terms of protecting living organisms. On the other hand, Wall (1995) found safety concerns have strong effect on the pre-cycling behaviour.

Other researchers such as De Young (1986), and Huebner & Lipsey (1981) suggested that anywhere in the world, personal feelings and affection contribute a lot to raising the level of environmentally ethical behaviour (EEB). They also agreed that the media have a significant role in raising environmental awareness that may then be translated into EEB. For years both electronic and print media such as National Geographic (TV, internet, and print), MSNBC, EMS, ABC Science News, CNN Nature News, BBC Science and Nature, magazines and newspapers have been providing many reports on local and global environmental issues. According to Galifianakis (1995) 80 per cent of Americans receive their environmental information from the media, and 50 per cent of newspapers have assigned their reporters to cover environmental issues. The effort was also recognized by media awards such as the American, and British Environment and Media Awards, for example in 1994 print media *Geographical* magazine was short listed for the award (*Geographical*, 1994). The number and type of environmental issues and conflicts reported play an important role in making specific environmental problems into big global issues. The media discuss environmental issues in terms of degree of risk, covering the politics, the

⁴ This assumption is based on some studies that found that contextual aspects influence behaviour indirectly, that is, through intrinsic social aspects such as perceived behaviour control.

economics, the social aspect and even the racial aspects of environmental stories, in addition to the scientific questions involved (Sachsman 1999). According to Sachsman (1999) “they have set their own environmental agendas instead of relying on the value judgement of their sources” (p. 88). Thus, environmental news brings with it cultural symbols in relation to the environment as well as strong emotional pleas and moral values. The media are well aware of the vast and complex nature of the environmental issues that cover almost every aspect of life. However, the Greenaccord Association in its inaugural international media forum (Alexandra de Blas 2003) states in the preamble:

“Many of the issues are extremely complex and contentious. They cover almost all of the activities of people and the rest of the natural world, including economics... energy, education, culture and agriculture. They don’t lend themselves to easy headlines or straightforward narratives and they are often subverted by cheap slogans and over simplistic analysis” (p. 4).

Rather, for the media to successfully play their part in promoting environmental awareness they have to present the issues along with their complexities.

Most of the studies found that social pressure such as from the community at large, family, neighbours, and friends relates strongly (directly or indirectly) to EEB (Dunlap 1991; Ebreo et al. 1999; Hess 1998; Larsen 1995; Oom Do Valle et al. 2005; Oskamp et al. 1991; Thogersen 2000; and Wall 1995). Other social extrinsic aspect such as personal convenience and the logistics of engaging in EEB either have no relationship (Ebreo et al. 1999) or have a negative relationship (Vining & Ebreo 1990) to EEB. Most of the researchers agree that print media rather than electronic media (such as television) relate indirectly to EEB (Oom Do Valle et al. 2005; Shrum et al. 1995; and Wall 1995). Other social extrinsic aspect – conserving resources, knowledge and publicity of EEB, and safety concerns – are also found by the studies to be positively correlated with EEB such as recycling and pre-cycling (Ebreo et al. 1999; Vining & Ebreo 1990; and Wall 1995).

ECONOMIC ASPECT

Moncrief (1973) claimed that urbanization is one of the causes of the United States’ environmental crisis. He gave the example of the frontier

era of American history. In the course of United States' urbanization (Moncrief 1973):

“Forest needed to be cleared to permit farming. Marshes needed to be drained. Rivers needed to be controlled. Wildlife often represented a competitive threat in addition to being a source of food. Sod was considered a nuisance – to be burned, plowed, or otherwise destroyed to permit “desirable” use of land” (p. 36-37).

Moncrief (1973) also claimed that technology is linked to the environmental crisis. The French revolution “involved a redistribution of the means of production and a reallocation of the natural and human resources that are the integral part of the production process” (Moncrief 1973: 34). This was possible because technological innovations in England had already amplified by several times the productive capacity of each worker prior to the revolution. Thus, huge factories emerged and more natural resources were needed. Population growth increased the demand for goods and services, leading to increased waste from production and consumption. Moncrief (1973) also pointed out that:

“It is very evident that the idea that the technology can overcome almost any problem is widespread in Western society ... [despite] strong evidence that much of man's technology, when misused, has produced harmful results...” (p. 39).

Hess (1998) also emphasized that “purely economic motives are important and should be addressed by policy-makers together with social motives” (p. 203). The author asserts that “incentive or charge will have positive effects on individuals' contribution towards the public good” (213-214). Wilber (1998) also thinks that financial incentives such as “a value-added tax on consumer goods, to highly targeted ones, such as excise taxes on luxury consumer goods or the carbon content of goods” (p. 1605) to guide people's behaviour are effective. But he also believes that those financial incentives are difficult to implement extensively because economic growth is based on the value of individual consumption and growth is seen as desirable. From Wilber's arguments, it is fair to say that the economic aspect in the form of financial incentives is not very influential in shaping consumers' environmentally ethical behaviour (EEB). This is not because consumers do not want to take up those incentives but because of the lack of such incentives as they

are seen by economists, policy makers and researchers as ineffective in the long run. For example, Oskamp et al. (1991) claim that previous studies found monetary concerns were strongly related to recycling behaviour, and that when monetary incentives ended, recyclers stopped recycling.

Wilber (1998) also touched on the designs of goods by manufacturers that make it harder for people to behave environmentally ethically. Wilber (1998) cited large corporations' obsession with "competing through product innovation and differentiation resulting in an emphasis on stylistic and physical obsolescence" (p. 1606). Thus, products are designed to be thrown away after use or to be used for less than their physical capacity due to changes in styles, or have been created to break down faster than they should. There are also products that physically can't be repaired when a component breaks down such as electric jugs and toasters. People have to continually buy new products, causing energy and natural resources waste. However, Wilber (1998) stated that price increases due to lack of natural resources will force manufacturers to reduce wasteful practices although this will also cause unemployment and "a crisis in economic growth" (p. 1606) if it is not well planned.

An empirical study by Thøgersen (2000) found that product attributes such as whether packaging is environmentally friendly have independent or direct influence on purchasing or pre-cycling behaviour. Shrum et al. (1995) also found that product attributes (except for the brand) such as "new products"⁵ (p. 80) and products' performance relate to the consumers' decision to buy green (pre-cycle). In addition, Mainieri et al. (1997) found that product attributes affect both pre-cycling and recycling behaviour. Product quality, prior use of the product, cost of the product, the product's size, and product safety in relation to the environment are some elements of the economic aspect that influence purchase decisions. However, the authors found that product safety in relation to the environment was less significant to consumers. The authors also found that people's self-reported level of participation in recycling was positively related to reports of their general environmental buying behaviour but not to their self-reported purchases of environmentally benign products.

⁵ Shrum et al. (1995) use this term (in the questionnaire) to indicate new products in the market. In addition, the authors explain that green consumers relate to new products because they are actively seeking for information on new products that are environmentally friendly due to the lack of such products in the market.

Schwepker & Cornwell (1991) also found that product attributes have a positive relationship with willingness to engage in pre-cycling behaviour. The authors found that people are willing to purchase products in larger packages with less frequency, products in less attractive packages that eliminate unnecessary packaging, and products in redesigned packages which contribute less solid waste. The authors found that consumers are also willing to purchase products in recyclable and biodegradable packages rather than similar products whose packages are not.

Ebreo et al. (1999) found that respondents were very concerned about human safety in relation to products. Respondents thought that whether products were derived from animals or tested on animals was less important than other environmental concerns. They rated products that have general implications for the environment, such as conserving energy, the highest. Their second highest concern was in relation to renewable resources, and limited amount of packaging. Respondents rated in third place concerns about products in terms of composition of the packaging such as products being packaged in returnable bottles.

Shrum et al. (1994) noted that in the case of recycling, it appears that many non-recyclers consider the price (in terms of money and time) of recycling to be too high. Shrum et al. (1995) found that the price of products also influences consumers' pre-cycling decisions and could deter them from pre-cycling.

Moncrief (1973) claimed that the elements of the economic aspect such as urbanization, technology and increasing demand for goods and services caused environmental degradation. There are a number of studies (Ebreo et al. 1999; Hess 1998; Mainieri et al. 1997; Oskamp et al. 1991; Schwepker & Cornwell 1991; Shrum et al. 1995; Thogersen 2000; and Wilber 1998) suggesting that economic solutions to the economic cause of environmental degradation lie with consumers. Hess (1998) and Wilber (1998), for instance, believe that financial incentives to consumers would encourage EEB, and would thus curb some aspects of environmental degradation. But Wilber (1998) also thinks that such incentives are difficult to implement, and Oskamp et al. (1991) thinks that it is not effective as a long term solution as proven by previous empirical studies on the effectiveness of such incentives to consumers. Wilber (1998) argues that environmentally unfriendly product design discourages EEB among consumers and that manufacturers should be forced to reduce wasteful practices. A good example is in some European countries such as Germany where manufacturers are required to recycle old cars. While it is true that manufacturers might be forced to reduce such

practices when prices increase due to lack of natural resources, EEB by consumers is more effective. Such consumers choose to buy environmentally friendly products and this could force manufacturers to produce more environmentally friendly products and reduce their wasteful practices. Many studies (mostly empirical ones such as Ebreo et al. 1999; Mainieri et al. 1997; Schwepker & Cornwell 1991; Shrum et al. 1995; and Thogersen 2000) found that the availability of products with environmentally friendly attributes has a strong positive relationship with EEB of consumers. However, as noted by Shrum et al. (1994) and found in an empirical study by Shrum et al. (1995) price can be a huge deterrent to EEB (i.e., pre-cycling). Thus, here, we can see a two way relationship between consumers' behaviour and product attributes: the influence of price, cost effectiveness and vendors on consumers' behaviour; and the influence of consumers on product attributes or manufacturers.

POLITICAL ASPECT

Dunlap (1991) has identified two kinds of people's behaviours towards the environment: first, people who focus on individual responsibilities, and second, people who focus on political actions. The emphasis on individual responsibilities includes changes in social and economic aspects of their lives. They feel that they have ecological responsibilities to recycle, and to buy organic products, as well as to reduce power consumption. Political actions or behaviours include voting choices, writing complaint letters (including e-mails) to politicians, and making phone calls to officials as well as boycotts of non-environmentally friendly products. They also donate to and become volunteers for environmental organizations. This group sees business and industry rather than individuals as the major cause of environmental problems and that therefore they have a primary responsibility to solve them, and it is government's job to make sure the business and industry do so. However, they also support individual responsibilities such as enforcement⁶ of recycling, and re-using.

Moncrief (1973) claimed that democracy forces government to adopt policy that directly relates to the environmental crisis. He gives the example of American national policy designed to convey ownership of the land and other natural resources into the hands of the citizenry that

⁶ For example a City Council can refuse to pick up rubbish that has not been separated into recyclable and non-recyclable materials.

was successfully achieved by Thomas Jefferson. Thus, Moncrief (1973) argued:

“the natural resources of the nation came to be controlled not by a few aristocrats but by many citizens ... decisions that ultimately degrade the environment are made not only by corporation boards and city engineers but by millions of owners of our natural resources” (p. 36).

Moncrief (1973) also argued that the inability of institutions such as government to act decisively when faced with issues of balancing economic profits and environmental well-being definitely link to the environmental crisis. In addition, Dunlap (1991) reported that in the 1980s research done by National Opinion Research Center, Roper Organisation, Harris, CBS polls and Cambridge Reports show that the majority of the public did not think government did enough in terms of funding and regulations in relation to the environment.

Dunlap (1991) also reported that previous research found that pro-environment opinions do not automatically translate into behaviours like voting. A Survey by Environmental Opinion Study in 1991 showed that half of the public said that whether or not a candidate was pro-environment made no difference to their voting decisions.

Wilber (1998) claimed that laws and regulations could influence individual values and behaviour codes. This claim is based on the argument that humans are able to change the values they currently hold, and the fact that “a principal objective of publicly proclaimed laws and regulations is to stigmatize certain types of behaviour and to reward others” (Wilber 1998: 1605). The author argued that the law may not stop an individual from having a negative attitude towards the environment but it can punish some negative environmental behaviour, and gradually, the behaviours will come to be seen as inappropriate by the public. However, he admits that there is very little evidence of political actions on preventive measures being successful. Thus, it is fair to say that the political aspect has little influence in shaping consumers’ environmentally ethical behaviour (EEB), not because consumers do not feel obligated to obey the laws and regulations on preventive measures imposed but because of the lack of enforcements of such laws and regulations.

However, other researchers such as Schwartz & Miller (1991) suggest that recycling law is one of the forces behind recycling behaviour. The recycling legislation stimulates behavioural change. Some

of the other studies also support Schwartz & Miller's (1991) suggestion. Richert & Nash (1990) in their study for the Maine Waste Management Agency claim that regulations on solid waste bring about recycling behaviour, giving an example of legislation in Maine where 50 per cent of municipal solid waste must be recycled within 3 years. Thus, Maine has a returnable bottle law, requirements to recycle office paper, and a ban on aseptic containers. Dunlap (1991) also claimed that political measures in the forms of incentives including economic ones (such as already discussed) and disincentives, and bans can modify individual environmental behaviour, giving the example of Oregon's Bottle Bill which has reduced litter and increased recycling.

Van Liere & Dunlap (1980) used among others political variables to explain the public's environmental concern. The authors admit to having only limited success in explaining public's environmental concerns using those variables as the relationships between the variables and the environmental concerns are not that strong (in fact, very modest). The authors found that Democrats (assumed to be pro-environment) are more concerned about environmental quality than are Republicans (assumed to be pro-business) but the relationship was not strong enough. Thus, in the US, political party is not a crucial variable in explaining variation in environmental concern among the general public.

Wall (1995) found that political party's affiliation (in particular New Democratic Party or NDP in Canada) correlated statistically significantly with environmental attitudes. The higher the involvement with NDP the greater the environmental concern though not directly linked to recycling behaviour. However, the author found that political involvement (in NDP) correlated with attempting to purchase organic foods. He also found that those who have access to recycling programmes, in particular access to a curb side programme, tend to do more recycling than those who do not have that access.

Dunlap (1991) claimed that NGO influence on consumers' behaviour were tremendous referring to the success of the Sierra Club and Nature Resources Defence campaign against the use of Alar, which resulted in such an effective consumer boycott of apples that growers quickly stopped using Alar. According to Dunlap (1991) Cambridge Reports in 1990 found half of consumers reported "avoiding the purchase of products by a company that pollutes the environment" (p. 36).

Smith (1984) writes on why individuals support private environmental 'public interest' groups. According to Smith (1984) "Early political science research adopted a pluralist explanation of interest groups, arguing that individuals choose to join such groups because they

supported the groups' goals" (p. 132). According to Smith (1984) others suggest that individuals join such groups because they receive some type of selective incentives (i.e., gains that are private or subject to some form of exclusion⁷).

Moncrief (1973) claimed that national policy resulted from democratic practices, and indecisive governments cause environmental degradation. Dunlap (1991) also reported a few findings of empirical studies showing that the public believe government is at fault. However, Dunlap (1991) also found that the difference in politicians' view on the environment did not have any influence on voting preference. Studies (Dunlap 1991; Richert & Nash 1990; Schwartz & Miller 1991; and Wilber 1998) also suggest that enforcement of environmental laws and regulations could encourage environmentally ethical behaviour (EEB). However, Wilber (1998) noted that environmental laws and regulations have not been very successful in enforcing EEB. Hess (1998) asserts that as far as government's influence is concerned "conscious appeals were all in all more effective than threats to impose sanctions [for example, paying penalties]..." (p. 216). However, other studies (Dunlap 1991; Richert & Nash 1990; and Schwartz & Miller 1991) suggest that environmental laws and regulations are among the forces for EEB such as recycling. Some researchers (Van Liere & Dunlap 1980; and Wall 1995) found that involvement in political parties is not a strong influence on EEB. Despite the issue of the real reason people join environmental NGOs discussed in Smith (1984) – the groups' goals or the gain of some type of selective incentives – study by Dunlap (1991) on the influence of environmental NGOs on consumers' behaviour found that NGOs have considerable influence on EEB, especially pre-cycling.

CONCLUSION

In conclusion, this article has identified and reviewed the dimension of findings of the literature. This article also discovered that social extrinsic

⁷ Smith (1984) did not mention what form of inducements or exclusions, but he did mention that if the inducements are in the forms of provision of a public good (directly or indirectly) as a result of the group's activities without the ability to exclude non-members from its enjoyment, it will not be a sufficient motivation to sustain a large pressure group. He described these groups as pressure groups.

aspect was rarely studied in previous research compare to social intrinsic aspect. The reason is probably that many studies claimed that such social extrinsic aspect only serves as indirect influence on environmental behaviour. However, some studies also show that the aspect can be a direct influence on environmental behaviour (Oom Do Valle et al. 2005) as discussed above.

The above discussion on the influence of the economic aspect on environmental behaviour also shows that except for product attributes, financial incentives were found to have less effect on long term environmental behaviour, and price to have a strong negative relationship to environmental behaviour. The results of the previous studies discussed above indicate that the economic aspect had a significant relationship with consumers' environmental behaviour.

The reviewed studies on the relationship between the political aspect and environmental behaviour produced mixed results. Studies that used laws and regulations as variables produced a weak relationship with environmental behaviour, but studies on the influence of environmental NGOs produced a strong relationship with environmental behaviour. This article also discovered that there is a lack of empirical studies using variables such as politician, voting behaviour, policy, and curb side programmes such as recycling.

Last but not least, for the purpose of policy-making process, future studies should focus more on the relation between contextual aspects and EEB in the context of contextual aspects-behaviour relation/model as oppose to attitude-behaviour relation/model.

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