



The influence of consumers' environmental beliefs and attitudes on energy saving behaviours

David Gadenne*, Bishnu Sharma, Don Kerr, Tim Smith

Faculty of Business, University of the Sunshine Coast, Australia

ARTICLE INFO

Article history:

Received 8 June 2011

Accepted 1 September 2011

Available online 7 October 2011

Keywords:

Consumer environmental behaviour

Beliefs

Attitudes

ABSTRACT

With a heightened focus on the concept of sustainability in the past few decades, government, business and individuals have become increasingly aware of the need to reduce our environmental footprint. Consequently there has been much research on consumer environmental behaviour, and the beliefs, norms and attitudes that influence this behaviour. In this article we develop a conceptual framework of consumer environmental behaviour and its antecedents, and test hypotheses within the framework by means of a survey of green consumers. The results show that general environmental beliefs do influence norms on environmental actions and prices, but only norms on price are correlated with environmental attitudes; both intrinsic and extrinsic environmental drivers together with social norms and community influence are associated with environmental attitudes, but cost barriers may have a negative influence. It was also found that there was a strong association between environmental attitudes and energy saving behaviours but the latter was not in any way influenced by government policies or subsidies.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

With a heightened focus on the concept of sustainability in the past few decades, government, business and individuals have become increasingly aware of the need to reduce our environmental footprint. To this end, governments have developed more comprehensive policies on environmental issues and climate change as evidenced by government initiatives in the UK, Europe, US and Australia (e.g. see <http://www.decc.gov.uk>; <http://ec.europa.eu/dgs/clima/news>; <http://www.epa.gov/climatechange/policy>; <http://www.climatechange.gov.au>); many businesses and individuals have adopted a more socially responsible stance by moving beyond mere compliance and engaging in more environmental behaviour (e.g. see Williamson et al., 2006; Reeves, 2011). However, the challenge is to encourage political leaders to realise the pledges that have been agreed as it has been suggested that change will be most successful where there is global cooperation involving visionary leadership driven by a number of motives, the development of networks to influence individual and community behaviour, large numbers of people living low-carbon lifestyles and networks that reach beyond borders to ensure active global support for action (Hale, 2010).

Not surprisingly, these issues have also spawned a dramatic increase in the number of publications concerning consumer

environmental issues in general. Within this context, there has been an ongoing debate as to whether environmental beliefs and attitudes necessarily result in more environmental behaviours, particularly those concerning energy conservation (e.g. Abrahamse et al., 2005; Barr et al., 2005; Ozaki and Sevastyanova, 2011).

Much of the research on this behaviour has involved models derived from the fields of psychology, in terms of its focus on individual behaviour (e.g. Pickett-Baker and Ozaki, 2008; Caird et al., 2008; Ozaki and Sevastyanova, 2011), and sociology, in terms of its focus on broader approaches that emphasise social and institutional change (e.g. Blake, 1999; Agyeman and Angus, 2003; Shove, 2010). However, since the current research is concerned with more individual behaviour, the model we propose is more in keeping with those derived in the psychology field. Accordingly, the purpose of this article is to investigate from an individual behavioural viewpoint whether current environmental beliefs and attitudes are associated with a pattern of energy saving behaviours such as buying energy efficient appliances, recycling paper, glass and plastic and conserving electricity (Pickett-Baker and Ozaki, 2008; Barr et al., 2005).

It has been found that the literature on environmentalism and social responsibility has a focus on the following dimensions: environmental beliefs (Kilbourne and Pickett, 2008; Collins et al., 2007; O'Connor et al., 1999); environmental norms (de Groot and Steg, 2007; Robinson, 2003; Stern et al., 1999; Blamey, 1998); environmental attitudes (Gooch, 1995; Becker et al., 1981); environmental drivers (Caird et al., 2008); environmental barriers,

* Corresponding author. Tel.: +61 7 5430 1154; fax: +61 7 5430 1231.
E-mail address: dgadenne@usc.edu.au (D. Gadenne).

social influences and government policy (Ozaki, 2011; Niemeyer, 2010; Caird et al., 2008); environmental behaviour (Kilbourne and Pickett, 2008; Cornelissen et al., 2008; Ohtomo and Hirose, 2007; Bamberg, 2003; Stern, 2000; Blamey, 1998). Therefore, the paper starts with a review of the literature on these dimensions, which leads to the development of a conceptual framework for this study. This is followed by a section detailing the results of the study, in terms of both demographics and hypothesis testing. Finally, a discussion of the results is provided together with conclusions, limitations and implications.

2. Consumer environmental behaviour

The concept of consumer environmental behaviour has drawn significant interest from scholars, researchers and policy makers (Cornelissen et al., 2008; Collins et al., 2007). In particular, studies involving consumer choice of environmental products and services have discussed the links between environmental beliefs, norms, attitudes and behaviour. Much of this research refers to theories of cognitive behaviour as a framework for understanding the antecedents of consumer environmental behaviour. The current study, therefore, focuses on the known antecedents of environmental behaviours identified in previous studies (see Table 1). A description of each of these antecedents of environmental behaviours, together with the environmental behaviours themselves, follows.

2.1. General environmental beliefs

Consumer knowledge of environmental issues has been linked to positive environmental behaviours (Tanner and Kast, 2003), and in some studies it has been observed that those with stronger pro-environmental beliefs were found to be more likely to engage in environmental oriented purchasing behaviour (Mainieri et al., 1997; Pickett-Baker and Ozaki, 2008). Though pro-environmental behaviour is not assured by the holding of pro-environmental values it is probable that these values do precede pro-environmental behaviour (Pickett-Baker and Ozaki, 2008). For example, consumers believe that greater effort needs to be put into developing environmental solutions such as renewable energy sources in order to save or reduce energy use and help preserve the natural environment (Niemeyer, 2010).

Nevertheless some studies suggest that environmental behaviours are not appreciably influenced by environmental beliefs due to the fact that general viewpoints are not precise enough to prompt pro-environmental action (Pickett-Baker and Ozaki, 2008). In such cases there is a 'value-action gap', as it is not inevitable that individual consumers who are concerned about the environment conduct themselves in a pro-environmental manner. However, it must be acknowledged that the theorisation of the value-action gap is based on the premise of individuals behaving rationally (Ajzen and Fishbein, 1980); this simplified view does not recognise that 'different people will interpret and

respond to the same environmental information in unpredictable and often highly variable ways' (Blake, 1999: 265). Furthermore, it is also acknowledged that within a broader social context, this gap cannot be overcome by simply 'invoking an information-deficit model of participation' (Blake, 1999: 274; Agyeman and Angus, 2003: 351), and that 'the gap is only mystifying if we suppose that values do (or should) translate into action' (Shove, 2010: 1276). Nevertheless, the presence of this value-action or belief-behaviour gap would indicate that there is not a direct relationship between environmental beliefs and behaviour, and this is consistent with normative psychology theories of pro-environmental behaviour, which are discussed below.

2.2. Environmental norms

Over the past few decades, various normative models for pro-environmental behaviour have been developed (Dunlap and van Liere, 1978; Stern et al., 1999; Stern, 2000). The new environmental paradigm (NEP) (Dunlap and van Liere, 1978), revised to a new scale known as the new ecological paradigm scale (NEP Scale) (Dunlap et al., 2000), has a number of foundational values emphasising respect for natural limits and the need to protect the balance of nature. These values have been widely used to measure ecological worldviews. The value-belief-norm (VBN) theory developed by Stern et al. (1999) suggests that biospheric, altruistic and egoistic values affect a person's acceptance of the NEP values. Normative beliefs have a positive effect on the intention to adopt environmental behaviour; for example what matters in the intention to engage in environmental behaviour is the belief that climate change has to be dealt with and everyone needs to do something about it (Ozaki, 2011). Consumers have a feeling of responsibility when they understand what is occurring and the consequences of their actions. A feeling of moral obligation is a considerable behaviour motivator; this includes pro-environmental behaviour. Therefore 'environmentally friendly behaviour may be characterised as morally demanding' (Tanner and Kast, 2003: 886).

As consumers become conscious of an environmental issue and believe it will happen, normative action occurs and as increasing numbers of consumers take up an innovative action, that practise becomes a norm, which in turn encourages other people to adopt the practise (Ozaki, 2011). An example of this is the case of the recycling of various products, which has become a conventional and normative behaviour (Barr et al., 2005). Consumer environmental studies have frequently used these theories, underscoring the importance of values, resulting beliefs and the obligatory feelings that form the norms for pro-environmental response. In addition to these environmental beliefs and norms, there are other antecedents to environmental behaviours including motivators or drivers of environmental behaviour, barriers, social influence, attitudes and government policies. These are discussed below.

2.3. Drivers of environmental behaviour

Many consumers buy green products in an endeavour to be environmentally friendly (Vermillion and Peart, 2010). Within the context of customers' values, beliefs on sustainable corporate performance and buying behaviour, the purchase of ecologically responsible products is more frequent amongst consumers who attribute high importance to environmental performance (Collins et al., 2007). Early adoption of green power by Dutch households suggests that there is an association between the adoption of green energy and consumers' level of perceived responsibility for the environment and knowledge (Arkesteijn and Oerlemans, 2005). A study of how environmental concern influenced specific

Table 1
Antecedents of environmental behaviours.

Antecedent	Main Source
General environmental beliefs	Pickett-Baker and Ozaki (2008)
Environmental norms	Ozaki (2011)
Drivers of environmental behaviour	Caird, Roy and Herring (2008)
Barriers to environmental behaviour	Niemeyer (2010)
Social or community influence	Ozaki (2011)
Environmental attitudes	Chan (2001)
Government policies and subsidies	Ozaki (2011)

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات