



Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

Encouraging sustainability in the workplace: a survey on the pro-environmental behaviour of university employees

Vincent Blok ^{a, *}, Renate Wesselink ^b, Oldrich Studynka ^a, Ron Kemp ^c

^a Wageningen University, Management Studies Group, The Netherlands

^b Wageningen University, Education and Competence Studies, The Netherlands

^c Netherlands Authority for Consumers and Markets, The Hague, The Netherlands

ARTICLE INFO

Article history:

Received 20 November 2013

Received in revised form

23 July 2014

Accepted 23 July 2014

Available online xxx

Keywords:

Human capital

Pro-environmental behaviour

Responsibility of individual employees

Sustainable development

Theory of planned behaviour

University

ABSTRACT

In order to enhance more sustainable behaviour in households, recent research focuses on the identification of factors that have an impact on sustainable or pro-environmental behaviour. The aim of this study is to identify factors that could predict pro-environmental behaviour in the workplace. While many studies focused on the behaviour of households, this study is one of the first that focuses exclusively on pro-environmental behaviour in the workplace. Based on a comprehensive literature review, two groups of factors were identified which could predict pro-environmental behaviour in the workplace: internal factors and external factors. Next, the model was tested among employees of a green university in the Netherlands. Based on the results of this study, it can be concluded that the theory of planned behaviour can explain pro-environmental behaviour in the workplace. At the same time, the results show that there are clear differences between factors influencing pro-environmental behaviour in households and in the workplace. Furthermore, also other factors like leadership support and exemplary pro-environmental behaviour by leaders are at stake in case of pro-environmental behaviour in the workplace, and have a significant positive impact on employee's intention to act pro-environmentally. The findings of this study have various managerial implications for green companies and organizations in general and green universities in particular.

© 2014 Elsevier Ltd. All rights reserved.

1. Introduction

In the last four decades, many researchers have investigated the negative impact of humankind on the carrying capacity of the earth (Friends of the earth, 2009; WWF, 2012). It is acknowledged that the increasing pollution of water, air and land resources on the one hand and the decrease of natural resources on the other hand is caused by human behaviour (Lehman and Geller, 2004). As a consequence, governments of many countries developed policies to restrict industrial pollution, preserve natural resources, reduce greenhouse gas emissions etc. of their citizens, and research additionally focused on the development of a more sustainable lifestyle in households (Kronenberg, 2007; Marchand and Walker, 2008), companies (Kürzinger, 2004; Rosner, 1995)

and educational institutions (Juárez-Nájera et al., 2010; Zsóka et al., 2013).

This raised the question of which factors have an impact on sustainable behaviour and how this behaviour could be enhanced. The research field of pro-environmental behaviour (PEB) emerged to investigate this. Based on a systematic literature review, Kollmus and Agyeman defined pro-environmental behaviour as a kind of behaviour that consciously seeks to minimise the negative impact of one's actions on the natural and built environment (Kollmus and Agyeman, 2002). Various scientists and psychologists developed different terms describing the same or similar types of sustainable or pro-environmental behaviour, but all these studies focused on minimising the negative impact of human behaviour on the environment.

Over the last 30 years, various environmental psychologists and sociologists have attempted to discover the factors that impact PEB in household settings. In order to find and describe these factors, different models have been developed. Several of them were developed many years ago, such as linear progression, altruism, empathy and pro-social behaviour (Kollmus and Agyeman, 2002).

* Corresponding author. Wageningen University, Management Studies, P.O. Box 8130, 6700 EW, Wageningen, The Netherlands. Tel.: +31 317 483623.

E-mail address: vincent.blok@wur.nl (V. Blok).

Recently, some sociological models with regard to community social marketing (Mckenzie-Mohr, 2000) and deliberate inclusionary procedures (Jacqueline, 1999) were developed.

The problem with existing models is that they are applied to explain PEB in *households*, while PEB in the workplace is not or not sufficiently taken into account in current research. In this respect, there is a gap in the literature explaining PEB exclusively in the workplace. Since employees spend about one third of their time in an office, it is expected that PEB in the workplace will contribute significantly to the minimization of the negative impact of employee's actions on the natural and built environment. In order to enhance PEB in the workplace, this study focuses on specific factors that encourage PEB in the workplace. Based on a comprehensive literature review, factors that determine PEB in the workplace have been identified first. Secondly, a model is proposed in which these factors are linked to PEB. Finally, the model is tested on employees of Wageningen University and Research Centre, a green university in the Netherlands ($N = 411$) (hereafter Wageningen UR).

On the one hand, universities can be seen as regular employers of highly educated professionals. In this respect, Wageningen UR provides a case in which PEB can be studied exclusively in the workplace. On the other hand, however, universities have a special role in enhancing PEB, since they can contribute significantly to the *education* of PEB of students. Although recent research showed that the integration of education for sustainable development is still in an early phase in most higher education institutes (Lozano et al., 2013), universities could play a critical role in the transition toward a more sustainable society (Ki-Hoon et al., 2013; Lans et al., 2014; Sedlacek, 2013). This is not only achieved by adjustments of the curricula (Lambrechts et al., 2013; Pappas et al., 2013), but also by the performance of role model behaviour of teachers and other staff members (Lukman et al., 2013). In this respect, the study of PEB in the university setting is important because it does not only concern PEB in the workplace but also in an educational setting which may have an impact on the PEB of students. In the present study, however, the primary focus is on the university as a case in which PEB in the workplace can be studied.

2. Theoretical framework

In the past decades, researchers have tried to explain the reasoning why some individuals engage in PEB and others do not, for instance from a psychological (Duerden and Witt, 2010; Howell, 2013; Whitmarsh and O'Neill, 2010), behavioural (Csutora, 2012; Hargreaves, 2011) or educational perspective (Rodríguez-Barreiro et al., 2013). Due to different scientific backgrounds, most researchers tried to explain these factors from different perspectives. For instance, economists investigated the influence of external factors on actual behaviour such as having an income, the price of the product or other social-economic characteristics in relation to behaviour (Kip Viscusi et al., 2011; Swami et al., 2011), while management scientists focused on organizational capabilities (cf. Veldhuizen et al., 2013) and the importance of human capital (cf. Dentoni et al., 2012). Psychologists, on the contrary, tended to examine internal or psychological variables related to behaviour, such as values, beliefs and attitudes (De Groot and Steg, 2009; Kaiser et al., 1999; Nordlund and Garvill, 2002).

By means of a systematic literature review, Kollmuss and Agyeman (2002) examined PEB models in order to explain why people act or do not act pro-environmentally. They used the concept pro-environmental consciousness to describe the complex structure of these factors and their link to PEB. Derived from their review and other studies (Grob, 1991; Rioux, 2011; Schultz et al., 1995; Steg and Vlek, 2009), three groups of factors can be distinguished: 1) demographic factors, 2) external factors, and 3) internal

human factors. Internal and external factors are seen from the viewpoint of the individual. In the literature, several examples can be found of specific demographic, internal or external factors which explain PEB. In this research, only internal and external factors are taken into account because these factors can probably be managed in order to enhance PEB in the workplace. Demographic factors will not lead to differentiated management policies and therefore are not taken into account in this research.

The point of departure in determining the internal and external factors in this research is Ajzen's established theory of planned behaviour (TPB) (Ajzen, 1991), because it has proven its value in former research studies (see for example Cordano et al., 2010; Rioux, 2011). Furthermore, it is one of the more commonly referenced theories in the field of environmental studies (Nye and Hargreaves, 2010). According to Ajzen and Fishbein (2004), the intention to act is the strongest predictor of actual behaviour. The antecedents of the intention to act are found in three constructs: one's attitude toward the behaviour, his or her subjective norms and his or her behavioural control over the situation in which he or she is expected to act and behave in a specific way. Attitudes concern a person's beliefs with regard to the consequences of specific acts (Cordano et al., 2010), while subjective norms consist of group-shared beliefs of how a person should act and behave (Conner and Armitage, 1998). Perceived behavioural control concerns a person's belief that he or she is 'in control' over the performance of the expected behaviour (Ajzen, 1991; Bandura, 1997).

The TPB was applied in the context of PEB by Rioux (2011). He found a positive correlation between battery collecting behaviour and the intention to act (cf. Cordano et al., 2010). Also other researchers applied the TPB to explain PEB, such as car use (Abrahamse et al., 2009; Bamberg and Schmidt, 2003; Wall et al., 2007), the use of public transportation (Heath and Gifford, 2002), recycling behaviour (Boldero, 1995; Mannetti et al., 2004), ecological behaviour (Kaiser et al., 1999; Kaiser and Gutscher, 2003) and pro-environmental behaviour (Oreg and Katz-Gerro, 2006). Although the TPB was mainly applied in households and most results mentioned above originate from household contexts, Nye and Hargreaves (2010) show that the TPB can also be applied in workplaces. In their study, they compare two interventions to improve PEB; one in households and one in the workplace. The most important difference they found in both contexts is that in workplaces it appears difficult to break out of old roles and, alternatively, that new ones can be difficult to play in the office. Furthermore, in workplaces there is a need for hard facts and data to justify new actions. In households the individual is more free to choose what and who to be in the context of his or her own household. Rather than hard data, it appears better to diffuse a kind of "folk knowledge" about what it means to live a green lifestyle (Nye and Hargreaves, 2010).

Based on the TPB, it is first of all expected that the intention to act predicts PEB in the workplace. Based on the TPB, it is secondly expected that attitudes, subjective norms and behavioural control have a positive relation with the intention to act pro-environmentally in the workplace. Besides, it is expected that several specific internal and external factors have a direct or indirect influence on PEB in the workplace.

2.1. Internal factors

In the PEB literature, several internal factors of PEB are identified as social factors (social norms, personal norms), cognitive factors (environmental awareness, intention to act, perceived behavioural control), and affective factors (values, attitudes toward the environment).

Download English Version:

<https://daneshyari.com/en/article/8103147>

Download Persian Version:

<https://daneshyari.com/article/8103147>

[Daneshyari.com](https://daneshyari.com)