An analysis of the measurement of the construct 'buying behaviour' in green marketing

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The process behind people´s decisions to buy green products is a complex one, and the factors that influence purchase behaviours are still not fully understood. This paper is an attempt to contribute to the state of knowledge in this field, by providing an analysis of the measurement of the construct buying behaviour in green marketing. In particular, it reports on the results of a study involving a sample of 1175 university students from four countries using a survey approach to test a green behavioural model. The method of data collection took the form of a self-administered questionnaire. The results gathered in the research have shown that the Straughan and Roberts' scale of green buying behaviour studied presents a high level of reliability, above other commonly used scales and is a useful measure of green buying behaviour; some of the findings may help to improve the effectiveness of green marketing.

1. Introduction

Interest in environmental issues has steadily increased in recent years as the impact of pollution, climate inconsistencies and rising fuel prices has been more widely experienced; global warming and carbon emissions have become international concerns (Polonsky et al., 2012) which are frequently addressed in the media. Such concerns have heightened public awareness of the importance of the natural environment (Leonidou and Leonidou, 2011) and have inspired a need to adopt more conservative behaviour. However, recent consumer polls (e.g. The Harris Poll) have evidenced increasing environmental knowledge, but a declining trend in the indicators of consumers' green behaviours. This may be due to a shifting economic circumstance on the one hand, but may be partly caused by confusion around green issues on the other,

compounded by the difficulties that consumers face when they try to incorporate more environmentally friendly products as part of green purchasing behaviour (Polonsky et al., 2012).

In a context where in many countries government, society and businesses are increasingly concerned with the environment, developing a better understanding of environmental behaviour and green marketing has come to the fore. While this has not surprisingly given rise to an increasing body of research which has sought to explicate the concepts (environmental concern, environmental behaviour and green purchasing) it has not resulted in a clearer understanding of the influencing factors behind environmental choices. Indeed the research has been criticised for being excessively fragmented and theoretical (Leonidou and Leonidou, 2011) and the difficulty of identifying (and understanding) green consumers is problematic. It is apparent that further research is necessary to understand more about this segment of the population and those factors which influence green buying behaviour (Coleman et al., 2011).

The factors involved in buying green products such as the motivation of consumers and the rationale behind their choices, continue to be difficult to understand. It is very common to find consumers who express a real concern for the environment, but their attitudes are not necessarily translated into their purchasing behaviour. Further, the relationship between green attitudes and values and behaviour is somewhat ambiguous (Essoussi and Linton, 2010). Lee (2009) suggests that, given the contradictory results found in the literature, further studies are necessary to confirm the link between environmental attitudes and behaviours, and to measure accurately green behaviours, particularly the green buying aspects. Similarly, Kalafatis et al. (1999) also suggest that extant literature provides very little information regarding the determinants of the intention to buy green products. Despite the research from numerous authors for

example, Chan and Lau (2000), Cleveland et al. (2005), Kim et al. (2012), Laroche et al. (2002), Lee (2009, 2008) or Straughan and Roberts (1999), it is still very difficult to find a unique, consensual and reliable scale to measure green buying behaviour.

In response to the need for further research this paper focuses on the construct, exploring a more reliable form of measuring buying behaviour, in the context of a green behavioural model (applied in four European countries - Portugal, Spain, England and Germany). The model contemplates the linkages between values, attitudes and behaviours, as suggested by several authors (e.g. Chan and Lau (2000), Cleveland et al. (2005), Kim et al. (2012), Laroche et al. (2002), Lee (2009, 2008), Straughan and Roberts (1999)).

This paper is structured as follows: first, an overview of environmental buying behaviour is presented, followed by an explanation of the scales involved in its measurement (drawing on the research of others). In order to contextualise the construct, a Green Consumer Behaviour model is proposed, followed by an outline of the methodology (sample, data collection, variables and statistical procedures). Results and conclusions are then presented.

2. An overview of environmental buying behaviour

Since this research is about "green" issues, it seems appropriate to offer some clarification of environmentally related concepts. According to Tiwari et al. (2011), green marketing is a holistic marketing concept which addresses environmental concerns at all stages from production through to consumption and disposal; at each stage of the value chain the impact on the environment should be addressed. The concept embraces the notion that products and services should not only meet the needs of consumers but should seek to contribute positively to environmental concerns. Thus,

disposal for example, should happen in a manner that is less harmful to the environment, addressing the growing awareness about the implications of pollution, global warming, products biodegradability, risky impact of pollutants, etc. The central idea of green marketing is to create awareness of environmental issues, and to enable consumers to understand how they would be contributing positively to the environment if they switch to green products and lifestyles (Cherian and Jacob, 2012).

According to Cherian and Jacob (2012), the effectiveness of green marketing depends on the consumers' attitudes toward the environment. Thus, a 'green consumer' is an individual who acts, purchases and consumes, in accordance with the need for environmental preservation, refusing to use products that are harmful to the environment (Akehurst et al., 2012). Green consumerism results in a variety of actions including recycling, energy conservation, saving resources, contributing to the cleanness of the community, and to the creation of legislation to protect the environment (Coleman et al., 2011). In the last decade evidence suggests that consumers have increasingly begun to modify their behaviour, integrating environmental aspects into lifestyle choices and changing their consuming habits for example, consuming less, saving resources, recycling etc. (Barber, 2010). In this context, marketing assumes a critical role and takes on a social responsibility to redirect behaviour towards more sustainable consumption (Suplico, 2009).

There are some expected behaviours (e.g. recycling, careful with the package choice, purchasing green products, saving energy, etc.) that are usually attributed to the green consumer (Laroche et al., 2001). However, consumers do not always base their buying decisions on their attitudes towards the environment (Moisander, 2007; Thøgersen, 1999; Vlosky et al., 1999). Nevertheless, it seems that the more closely involved consumers are with the environment, the more likely they are to buy green

products (Schuhwerk and Lefkokk-Hagius, 1995). Chan (1996) found that individuals who were more concerned about environmental issues tended to purchase more green products, although, despite the large number of consumers who express their concerns about environmental problems, many are only willing to act if it does not involve hard "costs", such as making a sacrifice in their lifestyle (Laroche et al., 2002). However some customers are undoubtedly more careful in their purchasing decisions, checking such things as product composition, packaging, materials, and so on (Hasan et al., 2012). In this way they are playing an important role as decision makers in moving towards sustainability, by reducing carbon emissions, engaging in recycling activities, supporting fair trade initiatives and adopting healthier and "green" lifestyles. Although it should be emphasised that while green consumers are usually more predisposed to purchase sustainable products, their buying behaviour is still constrained by a set of traditional factors including price, brand and availability (Jones et al., 2008). Cherian and Jacob (2012) suggest other factors that can contribute to persuade consumers to purchase green products: environmental awareness, the information available on environmental themes, green advertising promoted by companies, and the range of green products made available.

Contrary to Chan's (2001) research, where consumers expressed a high level of green purchase intention but it did not affect their green purchasing behaviour, Akehurst et al.'s (2012) research showed that there was some relationship between green purchase intentions and the actual purchase of green products, reconfirming Chan and Yam's (1995) earlier findings and the findings of Schuhwerk and Lefkokk-Hagius (1995) which suggest that the more closely involved the consumers are with the environment, the more likely they are to buy green products. Akehurst et al. (2012)

suggest that green consumerism may be entering another phase, where there is greater conformity between green consumer thoughts and actions (Akehurst et al., 2012).

Green behaviour is undoubtedly complex (attested by research results which show a contradiction between environmental concern and environmental protection) and controversial. Concern in one area does not necessarily mean concern in others (Polonsky et al., 2012). For example, a study by Pelsmacker et al. (2005) identifies the purchase of fair trade products as an act of green consumption; however, Kim et al. (2012) suggest that this consumption should not be qualified as an act of green behaviour because the transport of fair trade products may generate substantial production of CO_2 emissions what contra to environmental preservation. This is a clear example of the multidimensional nature of the concept of green consumption. The next section will consider the various items that have been used in research to tap the construct.

2.1. The Measurement of Green Buying Behaviour

Generally speaking when someone refers to green buying behaviour, individuals tend to associate the term with buying in an ethical, sustainable and environmentally responsible way. However that not only includes purchasing energy efficient products, less packed, ecologically less harmful, recycled products etc., but might also embrace purchasing fair-trade products (contributing to social justice) and locally sourced products (contributing to carbon reduction) (Paço et al, 2013). The literature reveals several quite different ways to measure environmentally friendly purchasing behaviour. Some authors have focused more on the functional aspects of the products, and others have adopted a more holistic approach to buying behaviour. The different scales found in the relevant literature will now be considered, with some information (where

available) provided to consider reliability. Table 1 represents a synthesis of a number of different studies and illustrates the diversity of measures used to tap the construct.

[Insert here Table 1]

In considering Table 1, it is possible to observe that there are some dimensions that are more usual than others in the presented scales. Aspects like packaging, products composition, brand (change brand for ecological reasons or choose a certain brand due to the fact that it could be green) and even the question of the energy efficiency are presented in most of the scales, especially the ones that contain more items. In relation to reliability it is possible to observe that only the scale of Kim et al. (2012), which concerns the 'socially conscious green consumption behaviour', achieves a reliability coefficient above 0.9. It is also possible to observe that when the study includes more than one country the reliability coefficient goes down.

It should be noted that some of the scales do not present reliability analysis. One scale that does not present a reliability analysis is the scale of Straughan and Roberts (1999). This scale has the advantage of measuring several dimensions of buying behaviour and, in this sense, offers the possibility to be used in several contexts. However, its reliability analysis is not presented by the author and its behaviour is also unknown across different countries. Therefore, the analysis presented within this paper aims to test the reliability of this scale and to show how the scale behaves when applied to several countries.

The present research uses as base the value-attitude-behaviour hierarchy model which has proven its reliability. The model explains how values affect ecological attitudes in relation to specific aspects (e.g. ecological food, recycling) which in turn influence (as a consequence) particular behaviours (Homer and Kahle, 1988; McCarty and Shrum, 1994). Figure 1 presents the conceptual model in which EC means

Environmental Concern, CB means Conservation Behaviour and BB means Buying Behaviour.

[Insert here Figure 1]

The next section will explain the methodology deployed for considering this further.

3. Methodology

Based on the perceived need for research in this field, a study on consumers' green buying behaviour was undertaken. The sample used in the study comprised University students, not just for convenience, but also because this target group will play a crucial role in the development of an environmentally conscious population, providing a possible 'snapshot' of future society, in terms of green behaviour. This generation of young people is likely to be better informed and concerned with social issues, particularly environmentalism, and represents a significant part of the market (Furlow and Knott, 2009). It therefore seems very important to identify and be aware of the factors which may influence the buying decisions of youth and their environmental attitudes.

Respondents were targeted in four countries. Portugal and Spain were chosen because of their image as being less developed and more peripheral regions. These countries have responded to environmental concerns more recently, whereas England and Germany were chosen as countries which represent more developed economic and social contexts. Furthermore, both England and Germany are countries which were early adopters of environmental policies and practices and thus their consumers are likely to be more environmentally concerned than those of other European countries (ex. Latin and Eastern) (Paço et al., 2013).

A survey approach was used to test the proposed model. The method of data collection took the form of a self-administered questionnaire. The survey instrument was developed on the basis of a review of the existing green consumer behaviour literature and took the form of a structured questionnaire, consisting mainly of closed questions, covering four sections: values and attitudes, behaviours, generic variables related to the respondents' milieu and demographics. In the pilot stage, the questionnaire was pretested by a group of 40 individuals in order to identify language and understanding problems.

The questionnaire was used in its original form and language (English) for the sample from England. For the German, Portuguese and Spanish sample the questionnaire was translated using standard back-translation protocol. As far as possible, some adjustments were made to ensure that the questions were relevant and adequate to national contexts. About 300 questionnaires were randomly distributed in the campus or in classes. Thus, a convenience sample was used and the final sample comprised composed by 1175 individuals (across the four countries).

To access 'buying behaviour', ten items of the *Ecologically Conscious Consumer Behaviour* (ECCB) scale of Straughan and Roberts (1999) were used, covering topics such as packaging, energy-efficiency, polluting or recycled products. To measure the Environmental Concern (EC) construct Dunlap and Van Liere's (1978) *New Environmental Paradigm* (NEP) scale was used (it comprises concepts such as limits to growth, steady-state economy and recourses conservation, comprising 12 items. To evaluate the respondents' conserving behavior, the 7 items from the scale *ENVIROCON* (Pickett, Kangun and Grove 1995) were used (related to dispositional activities, energy and water saving behaviour and decisions about the package). This part of the questionnaire was measured using a Likert Scale where 1= never and 7=

always.

After collection, the data was statistically analysed and interpreted using the statistical software AMOS version 20.0. Structural equation modelling (SEM), t-tests, and correlations were used to analyse the data. Structural equation modelling is a multivariate technique used to estimate multiple and interrelated dependence relationships. This is a powerful statistical tool that combines aspects of multiple regression and factor analysis (Newell et al., 1998).

4. Results

After having calculated the proposed model in Figure 1 and eliminating the less significant indicators, the final indicators of the construct green Buying Behaviour (BB) are those presented in Table 2. Of the initial 10 indicators that measure the construct BB only one was eliminated (BB10 - *I buy high efficiency light bulbs to save energy*) for showing an inadequate representation of the construct in the study.

Table 2 presents the minimum and maximum of answers related to Green Buying Behaviour, the mean and the standard deviation.

[Insert here Table 2]

In table 2 it is possible to observe in table 2, the indicators that present higher means by descendent order are BB1 (*I try to buy energy efficient products and appliances*), BB4 (*I have switched products/brands for ecological reasons*), BB9 (*Whenever possible, I buy products packaged in reusable containers*) and BB9 (*I try to buy products that can be recycled*). The indicators that present lower means are BB7 (*I have convinced members of my family or friends not to buy some products which are harmful to the environment*) and BB2 (*I avoid buying products that have excessive packaging*).

An analysis of the indexes presented by the measurement model reveals good fit levels as the GFI is 0.94, the AGFI is 0.913, the PGFI is 0.645, the coefficient CMIN/DF is 2.82 and the RMSEA is 0.028, therefore, above the minimum values recommended by Hair et al. (1998) and Maroco (2010).

In Table 3, verifies that all the measurement model's standardised coefficients for the construct Green Buying Behaviour are statistically significant to a significance level of 0.05 (all values of t are superior to the value 1.96, corresponding to a significance level of 5%), confirming that all the variables are significantly related to the construct green Buying Behaviour (BB). It is also noticeable that all the indicators present a value, representing the item individual internal reliability, superior to the minimum recommend (0.5) (Hair et al., 1998).

[Insert here Table 3]

However, it is also possible to observe that BB1 (*I try to buy energy efficient products and appliances*) presents the lower individual internal reliability when the model is analysed for the 4 countries, thus showing less stability when used across different countries. This indicator, when applied to the Portuguese and the Spanish sample does not even reach the minimum levels recommended. Thus, although this indicator presents the highest mean, its use is not reliable. Item BB2 also does not achieve the minimum level when applied in the Spanish sample. In general terms it is possible to say that the most reliable items, in individual terms, are BB8 and BB9 as they behave in the same way across the four countries.

Regarding the global reliability of the construct green Buying Behaviour (BB), Table 4 shows that as all the indicators exceed the minimum level of 0.7, recommended by Hair et al. (1998) and Maroco (2010) and they are sufficient for the representation of

construct Green Buying Behaviour. The internal reliability of the construct green BB is 90%.

[Insert here Table 4]

Table 5 presents the value of the explained variance by the construct BB in several of its indicators, while Table 6 presents the values of total variance explained by the same construct.

[Insert here Table 5]

[Insert here Table 6]

As can be observed, both in the individual indicators as well as in global terms, the construct green Buying Behaviour does not always give high percentages, although the results surpass the minimum levels of 0.25 recommended by Maroco (2010). This means that the behaviours with less variance are not only explained by the green Buying Behaviour, but by other reasons not included in this study.

The same reasoning can be applied to the construct BB in general terms. This means that the construct only explains 50% of the indicators studied. The other 50% of the variance not explained are due to others factors not included in this analysis.

To conclude, it can be said that, although the construct BB only explains 50% of the variance of its indicators, the construct presents a high level of reliability (90%), even when applied across several countries. A level superior to the majority of the scales used in other studies (e.g. Mainieri et al., 1997; Chan and Lau, 2000; Chan 2001; Laroche et al., 2002; Cleveland et al. 2005; Lee, 2008, 2009) with the exception of the subscale presented in the study of Kim et al. (2012) regarding the *Socially Conscious Green Consumption Behaviour*, a dimension not included in this study.

5. Conclusions

The objective of this study was to provide a contribution to the state of knowledge on green consumption, by testing a green behavioural model and by analysing the reliability of Straughan and Roberts' (1999) scale in global terms and across different countries. The results gathered in the research have shown that the scale presents a high level of reliability, above other commonly used scales. Therefore, the scale can be used to measure green buying behaviour.

In addition, thanks to its scope and range, the scale also presents high reliability levels, showing that it can be used across different countries. From the universe of items that form the scale, item BB8 (*Whenever possible, I buy products packaged in reusable containers*) and BB9 (*I try to buy products that can be recycled*) are the most reliable items of the scale. While, items BB1 (*I try to buy energy efficient products and appliances*) and BB2 (*I avoid buying products that have excessive packaging*) are the least reliable and therefore should be used with caution. These two items were the least useful

In general terms, the results of the research seem to indicate that the most reliable items, in individual terms, are BB8 and BB9 as they behave in the same way across the four surveyed countries. It should be noted that these indicators are related to reusability and recycling, which suggests that green buying behaviour is more focused on issues of packaging and whether products offer the possibility of recycling. This suggest the importance of these two aspects to consumers and that marketing professionals working together with government officials and policymakers, need to build on this and developing campaigns to enhance consumer knowledge of environmental issues and of the implications of their consumption patterns.

This study has some limitations that should be mentioned: the use of convenience samples of university students (however justified by the fact that the young people have more propensity to engage in the 'green movement' and will play an important role in the future of global), and the limitation of the study to only four countries could be not considered as representative. Even so, the research carried out and the results obtained are indicative of some of the trends that could be expected, and which would probably be seen elsewhere, if the study had more countries. In addition, the approach used in this research suggests that this type of international study may be useful in illustrating how different scales behave when applied to several countries. Another limitation out of the study is that it only tested a scale when so many others are available, it would be interesting in future studies to test the reliability of several scales across several samples to check which one presents better reliability.

In future additional research should be carried out in order to increase the sample in a national and European perspective focusing not only in students but on the general population.

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Figure 1. Green Consumer Behaviour (GCB) model
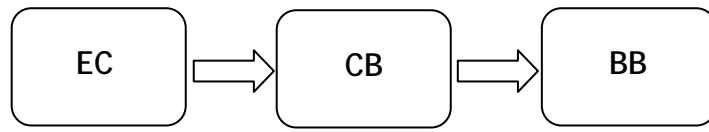
Source: own elaboration

Table 1. Scales of GBB (Green Buying Behaviour) and its indicators

Studies	Indicators	Dimensions	Reliability
Chan (2001) Green Purchase Behaviour (3 items)	1. Frequency of shopping for green products within the previous month 2. Indication of the amount spent on green products within the previous month 3. Total number of green products bought within the previous month	Frequency Expense Quantity	0.80
Chan and Lau (2000) Actual Green Purchase (2 items)	1. I buy the products because they are less polluting 2. I switch to other brands for ecological reasons	Pollution Brand	0.77
Cleveland et al. (2005) Specific Purchase Frequency (6 items)	1. Disposable diapers 2. Laundry detergent that is phosphate-free 3. Styrofoam cups 4. Disposable cameras 5. Fruits and vegetables organically grown 6. Toothpaste in pumps	Material used to produce Composition Organic Packaging	n.a.
Kim et al. (2012) Green Consumption (10 items – after 17 initial item purification)	*Health-conscious green consumption behaviour* 1. Organic foods 2. Foods with no artificial ingredients 3. Foods with eco-labels *Resource-conscious green consump. behaviour* 4. Small-portion foods 5. Necessary products 6. Energy-efficient products *Socially conscious green consumption behaviour* 7. Foods produced and distributed fairly 8. No products from companies involved with unfair trade 9. Not buy at stores involved with unfair trade 10. No products from companies involved with environmental problems	Organic Composition Label Packaging Waste Energy-efficiency Fair trade Seller reputation	0.77 0.74 0.92
Laroche et al. (2002) Environmental Issues when Purchase (2 items)	1. When buying something wrapped, check that is wrapped in paper or cardboard made of recycled material 2. Refusing to buy products from companies accused of being polluters	Packaging Seller reputation	0.73 (English Canadians)/ 0.69 (French Canadians)
Laroche et al. (2002) Buying Environmentally Products (2 items)	1. Buying plastic knives, forks or spoons 2. Buying Styrofoam cups	Material used to produce	0.73 (English Canadians)/ 0.70 (French Canadians)
Lee (2009) Green Purchase Behaviour (7 items)	1. I often buy organic products 2. I often buy products that are labelled as environmentally safe 3. I often buy products against animal-testing 4. I often buy products that contain no or fewer chemical ingredients 5. When I consider buying a product, I will look for a certified environ-safe or organic stamp 6. I often buy products that support fair community trades 7. I often buy products that use recycled/ recyclable packaging	Organic Label Animal test Composition Certificate Fair trade Packaging	0.85
Lee (2008) Green Purchasing Behaviour (4 items)	1. When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally-damaging 2. I prefer green products over non-green products when their product qualities are similar 3. I choose to buy products that are environmentally-friendly 4. I buy green products even if they are more expensive than the non-green ones	Label Similarity Personal choice Price	0.71
Mainieri et al. (1997)	1. I try to buy things that come in reusable	Packaging	0.86

General Environmental Buying Behaviour (8 items)	containers 2. I avoid using products that contain fluorocarbons … (n.a.)	Composition	
McCabe and Corona (2011) Buying Behaviour (5 items)	1. Buy eco-friendly cleaning products 2. Buy locally food grown 3. Buy organic food 4. Plan do buy a hybrid vehicle 5. Own or lease hybrid	Composition Organic Locally sourced Hybrid	n.a.
Pickett-Baker and Ozaki (2008) Consumer Product Questions (7 items)	1. I feel good about buying brands which are less damaging to the environment 2. It is easy for me to identify these products 3. If firms advertise their green behaviour I would be much more likely to choose that brand 4. Green products are inferior in performance to non-green products 5a. I have formed this opinion because people I know and trust told me so 5b. I have formed this opinion because of my experience of a product more than 5 years ago 5c. I have formed this opinion because of my own recent experience of a product 6. I trust well-known brands to make products which work 7a. In the marketing communication, I expect to be informed of new improved formulas/design 7b. In the marketing communication, I expect to be informed of clear benefits to me/my family 7c. In the marketing communication, I expect to be informed of how environ friendly a product is 8a. Green products are marketed to me in a way which I never notice 8b. Green products are marketed in a way which I find really engaging/relevant to my lifestyle	Brand Identification Performance Influences Marketing communication	n.a.
Schlegelmilch et al. (1996) General Pro-Environmental Purchasing Behaviour (3 items)	1. Choose the environmentally-friendly alternative if one of a similar price is available 2. Choose the environmentally-friendly alternative regardless of price 3. Try to discover the environmental effects of products prior to purchase	Price Effect on environment	0.71 (students)/ 0.82 (general public)
Schlegelmilch et al. (1996) Specific Pro-Environmental Purchasing Behaviour (5 items)	1. Recycled paper products 2. Not tested in animals 3. Environmentally-friendly detergents 4. Organically-grown fruit and vegetables 5. Ozone-friendly aerosols	Composition Animal test Organic	n.a.
Straughan and Roberts (1999) Buying Behaviour (10 items)	1. I try to buy energy efficient products and appliances 2. I avoid buying products that have excessive packaging 3. When there is a choice, I choose the product that causes the least pollution 4. I have switched products/brands for ecological reasons 5. I make every effort to buy paper products made from recycled paper 6. I use environmentally friendly soaps and detergents 7. I have convinced members of my family or friends not to buy products harmful to the environment 8. Whenever possible, I buy products packaged in reusable containers 9. I try to buy products that can be recycled 10. I buy high efficiency light bulbs to save energy	Energy-efficiency Packaging Pollution Brand Material used to produce Composition Influences	n.a.

Source: own elaboration

Table 2. Characterisation of the variables related with green Buying Behaviour

Indicators	Mean	Standard Deviation	Minimum	Maximum
BB1 - I try to buy energy efficient products and appliances	5.146	1.4506	1.0	7.0
BB2 - I avoid buying products that have excessive packaging	3.574	1.6870	1.0	7.0
BB3 - When there is a choice, I choose the product that causes the least pollution	4.699	1.6054	1.0	7.0
BB4 - I have switched products/brands for ecological reasons	3.764	1.8203	1.0	7.0
BB5 - I make every effort to buy paper products made from recycled paper	3.925	1.7890	1.0	7.0
BB6 - I use environmentally friendly soaps and deterge	3.713	1.6983	1.0	7.0
BB7 - I have convinced members of my family or friends not to buy some products which are harmful to the environment	3.370	1.7971	1.0	7.0
BB8 - Whenever possible, I buy products packaged in reusable containers	4.100	1.6967	1.0	7.0
BB9 - I try to buy products that can be recycled	4.390	1.6573	1.0	7.0

Table 3. Standardised regression loadings

Indicator	Four countries	Spain	Portugal	UK	Germany	p*
BB1	0.551	0.407	0.482	0.68	0.597	0.001
BB2	0.618	0.455	0.599	0.707	0.59	0.001
BB3	0.682	0.616	0.622	0.746	0.723	0.001
BB4	0.727	0.591	0.725	0.819	0.709	0.001
BB5	0.776	0.771	0.771	0.835	0.658	0.001
BB6	0.683	0.673	0.676	0.771	0.62	0.001
BB7	0.666	0.597	0.734	0.762	0.542	0.001
BB8	0.777	0.761	0.803	0.805	0.707	0.001
BB9	0.801	0.764	0.791	0.827	0.764	0.001

Table 4. Reliability of the green Buying Behaviour (BB) construct

Construct	Indicator	Standardised Loadings	(∑Standardised loadings)^2	Measurement error	∑ Measurement Error	Reliability
BB	BB1	0.551		0.696399		
	BB2	0.618		0.618076		
	BB3	0.682		0.534876		
	BB4	0.727	39.450961	0.471471	4.563271	0.9
	BB5	0.776		0.397824		
	BB6	0.683		0.533511		
	BB7	0.666		0.556444		
	BB8	0.777		0.396271		
	BB9	0.801		0.358399		

Table 5. Variance explained by the construct in the several indicators

Indicator	Construct	Variance explained
BB1		0,304
BB2		0,381
BB3		0,465
BB4		0,529
BB5	BB	0,602
BB6		0,466
BB7		0,444
BB8		0,603
BB9		0,642

Table 6. Variance extracted by the construct BB

Construct	Indicator	Standardised loadings	∑(Standardised Loadings^2)	Measurement error	∑ Measurement error	Variance extracted
BB	BB1	0.551		0.696399		
	BB2	0.618		0.618076		
	BB3	0.682		0.534876		
	BB4	0.727		0.471471		
	BB5	0.776	4.436729	0.397824	4.563271	0.492969889
	BB6	0.683		0.533511		
	BB7	0.666		0.556444		
	BB8	0.777		0.396271		
	BB9	0.801		0.358399		